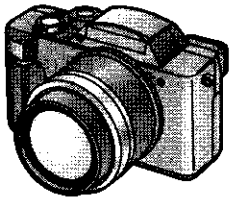
Panasonic

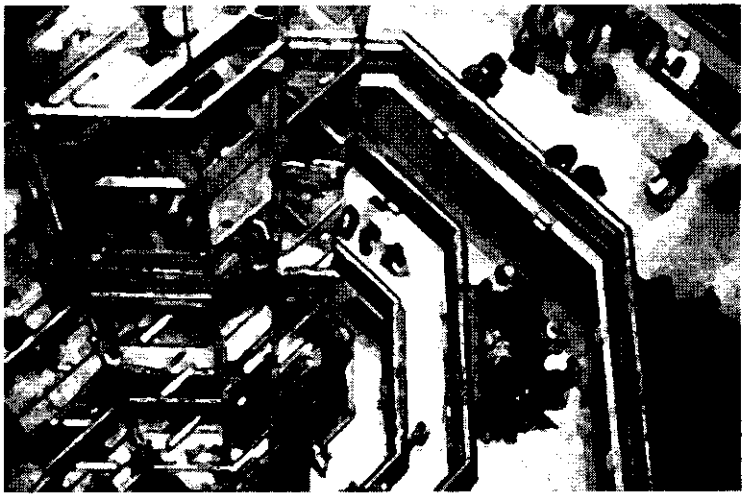


LUMIX

Digital Camera

Operating Instructions

Model No. DMC-FZ1A



Before use, please read these instructions completely.

SD™

LEICA
DC VARIO-ELMARIT

VQT0B50

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES AND DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Carefully observe copyright laws. Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

- Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.
- SD Logo is a trademark.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.

Contents

Preparation

Standard Accessories 6
Names of the Components 7
LCD Monitor Display/
Viewfinder Display 9
Quick Guide 11
Charging the Battery 12
Inserting the Battery 13
Connecting to an Electrical Outlet.... 15
Inserting the Card 16
Turning Power on/off..... 18
Adjusting the Viewfinder
(Diopter Adjustment) 19
Attaching the Lens Hood..... 20
Attaching the Strap 21
Attaching the Lens Cap 21
Using the Tripod..... 22
Using the LCD Monitor/Viewfinder... 23
The Shutter Button
(Pressing halfway/Pressing fully)..... 24
The Mode Dial..... 25
Operating the Menu 26
Setting the Date/Time (Clock Set) ... 27

Recording images (basic)

Using the AF Trigger..... 28
Taking Pictures 29
Checking the Last Picture (Review). 31
Recording Motion Images 32
Using the Optical Zoom 33
Using the Digital Zoom..... 34
Taking Pictures with
the Built-in Flash 35
Using the Optical Image Stabilizer... 37
Using the Continuous AF 38
Taking Pictures with the Self-timer .. 39

Recording images (advanced)

Taking Pictures with Audio..... 40
Changing the Picture Size..... 41
Changing the Quality
(Data Compression Ratio)..... 42
Taking Pictures With the Easy
Recording Mode..... 43
Taking Pictures with
the Portrait Mode..... 44
Taking Pictures with
the Sports Mode..... 45
Taking Pictures with
the Night Portrait Mode 46
Taking Pictures with
the Spot Mode..... 47
Taking Picture with
the Panning Mode 48
Compensating the Exposure..... 49
Taking Pictures with
Auto (AE) Bracket 50
Using the AF/AE Lock..... 51
Adjusting the Color Effect..... 52
Picture Adjustment
(Natural/Standard/Vivid)..... 53
Setting the White Balance..... 54
Setting ISO Sensitivity..... 56
Taking Pictures with Macro Mode.... 57
Taking Pictures with Burst Mode..... 58
Using the MC Protector/ND Filter..... 59

Playback

Playing Back Still Pictures..... 60
Playing Back Still Pictures with
Audio 61
9 Images Multi Playback 62
Using the Playback Zoom 63
Playing Back Motion Images..... 64

Editing

Deleting Images 65
Writing the Print Information
in the Card (DPOF Setting) 67
Protecting Images on the Card 70

Technical use

Playing Back with Slide Show
(Automatic Playback) 71
Adding Audio to Recorded Pictures
(Audio Dubbing) 73
Resizing the Recorded Pictures 74
Trimming the Recorded Pictures 75
Formatting the Card 77
Adjusting the LCD Monitor/
Viewfinder Brightness 78
Using the Auto Review 79
Setting up the Operational Sound 80
Setting up the Power Save Mode 81
Resetting the File Number 82
Initializing the settings 83
Playing Back Images with
a TV Monitor 84
After Use 85
Connecting to a PC 86

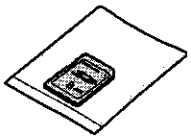
Others

The Menu Items 87
Cautions for Use 89
Warning Indications 93
Troubleshooting 94
Specifications 95

Standard Accessories

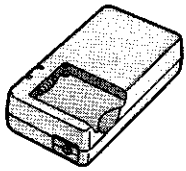
Before using your camera, check the contents.

1 SD Memory Card (8 MB)
RP-SD008B



2 Battery Pack
DMW-BM7

3 AC Adaptor
DE-928BA



4 AC Cable
K2CT3DA00

5 DC Cable
K2GH2DB00003

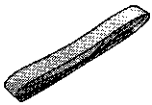
6 A/V Cable
K1V204C10001

7 USB Connection Kit
(Consists of)

USB Connection Cable
K1HA05CD0002

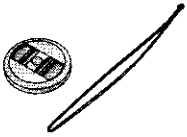
CD-ROM
VFF0184

8 Strap
VFC3916



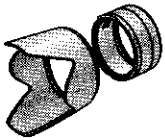
9 Lens Cap
VYK0M30

10 Lens Cap String
VFC3917

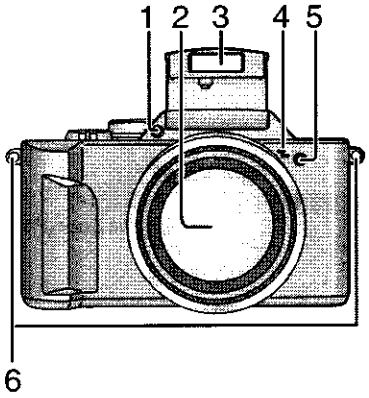


11 Lens Hood
VGK2826

12 Lens Hood Adaptor
VYQ2583

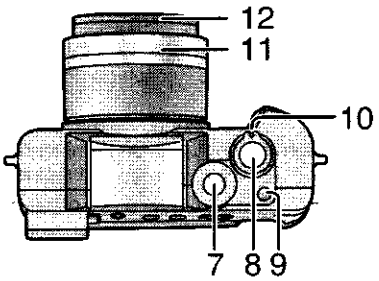


Names of the Components



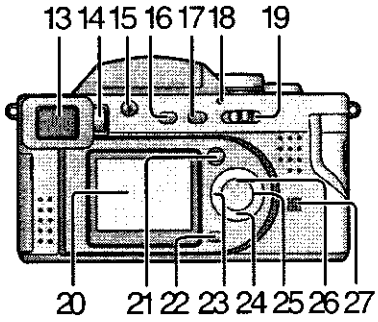
[Front View]

1 Flash Sensor (P36)
2 Lens
3 Flash
4 Microphone (P37, P73)
5 Self-timer Indicator (P37)
6 Strap Eyelet (P21)



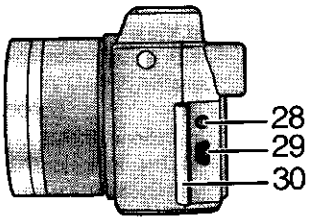
[Up View]

7 Mode Dial (P25)
8 Shutter Button (P24)
9 Single/Burst Mode Button (P58)
10 Zoom Lever (P33, P34)
11 Lens Ring (P59)
12 Lens Tube



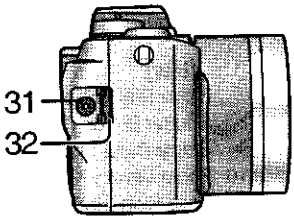
[Back View]

13 Viewfinder (P19)
14 Diopter Adjustment Dial (P19)
15 Flash Open Button (P35)
16 DISPLAY Button (P23)
17 FOCUS Button (P28)
18 Power Indicator (P18)
19 Power Switch (P18)
20 LCD Monitor (P9)
21 MENU Button (P26)
22 Delete Button (P31, P65)
23 Self-timer Button (P37) / ◀ Button
24 REVIEW/SET / ▼ Button (P31)
25 Flash Mode Button (P35) / ▶ Button
26 Exposure Compensation Button (P49) / ▲ Button
27 Speaker (P61)



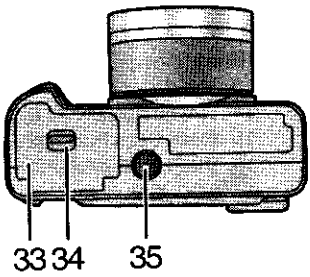
[Left View]

28 A/V OUT Socket (P84)
29 USB Socket (5pin) (P86)
30 Terminal Door (P14)



[Right View]

31 DC IN Socket (P14)
32 DC IN Terminal Door (P14)



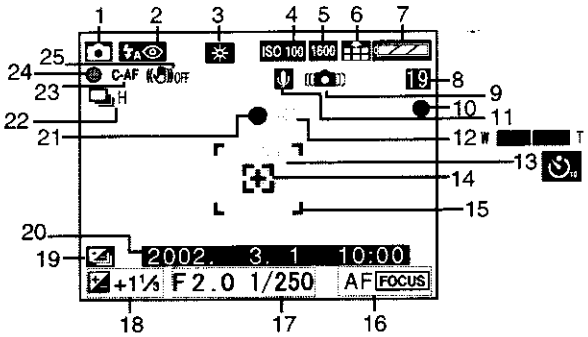
[Bottom View]

33 Memory Card/Battery Door (P13, P16)
34 Memory Card/Battery Door Open Lever (P13, P16)
35 Tripod Receptacle (P22)

[AC Adaptor]

1 AC Input Terminal
2 Power Indicator
3 Charge Indicator
4 Battery Attachment Part
5 DC Input Terminal

LCD Monitor Display/Viewfinder Display



[In recording]

1 REC mode

2 Flash mode (P35)

3 White balance (P54)

4 ISO sensitivity (P56)

5 Picture size (P41)

6 Quality (data compression ratio) (P42)

7 Battery indicator (P14)
(When using AC adaptor this is not displayed)

8 Frame/Time remain
In motion image mode: XXXs

9 Shutter Jiggle alert

10 Recording indication

11 Audio REC (P37)

12 Zoom (P33, P34)

(digital zoom ON: [■])

13 Self-timer mode (P37)

14 Spot metering target and Spot AF area in the Spot mode (P47)

15 Focus area (P28)

16 Shutter speed indication

17 Aperture indication

18 Exposure compensation (P49)

19 Auto bracket (P50)

20 Current date and time (P27)
It is displayed for about 5 seconds when starting/after setting the REC mode/after setting the time.

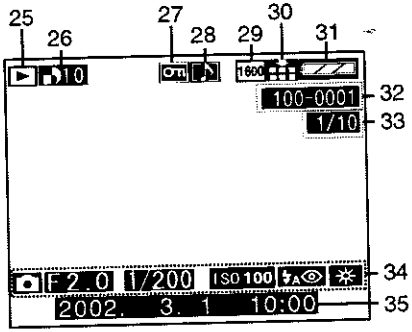
21 Focus indication (P28)

22 Burst mode (P58)

23 Color Effect mode (P52)

24 Continuous AF (P38)

25 Optical Image Stabilizer (P37)



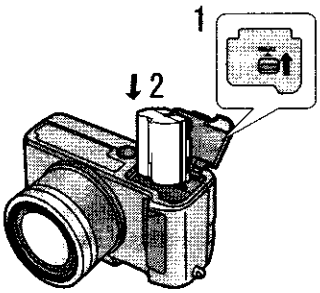
[In recording in Easy mode]

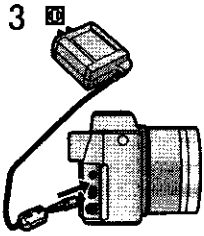
1 Flash mode
2 Burst mode
3 Focus indication
4 Battery indicator
5 Frame/Time remain
6 Shutter Jiggle alert
7 Recording indication
8 Zoom
9 Self-timer mode
10 AF area
11 Current date and time

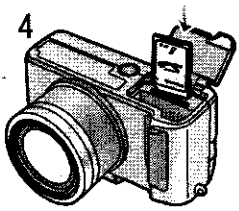
[In playback] (LCD monitor only)

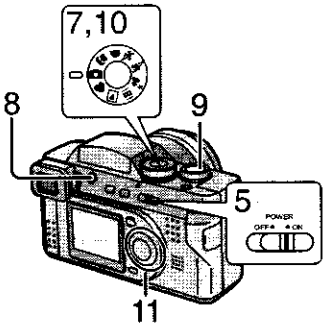
1 [▶]: Playback mode
2 DPOF [🖼] (P67)
[🖼](White):
DPOF setting for printing
[🖼](Green):
DPOF setting for Slide Show
[🖼](Green with DPOF number):
DPOF setting for printing and Slide Show
3 Protected image (P70)
4 Image with audio (P61)
5 Picture size (P41)
6 Quality (data compression ratio) (P42)
[▦]: In motion image mode
7 Battery indicator (P14)
8 Folder/File number
9 Page/Total images
10 REC data
It will be displayed when the [DISPLAY] button is pressed.
11 Recorded date and time

Quick Guide









Prepare the following items.

- Camera
- Battery
- Memory Card
- AC adaptor
- AC cable

Check that the power switch is set to [STANDBY] and the lens tube is stored.

1 **Charge the battery. (P14)**
•Charging is finished in 80 minutes.

2 **Slide the lever in the direction of the arrow to open the Memory Card/Battery door.**

3 **Insert the battery into the camera. (P13)**

4 **Insert the Memory Card into the camera. (P16)**

5 **Set the power switch to [OPERATE]. (P18)**

6 **Set date/time. (P27)**

7 **Set the mode dial ① and the REC mode dial. (P25)**

8 **Press the flash open button to open the Flash. (P35)**

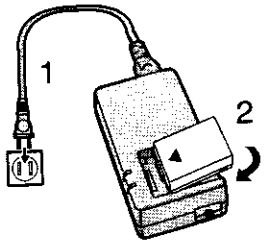
9 **Take pictures. (P24)**

[Playback]

10 **Set the mode dial to playback [▶]. (P60)**

11 **Press ◀/▶ to select the picture you want to view.**

Charging the Battery



1 **Connect the AC cable.**
- The [POWER] indicator lights.

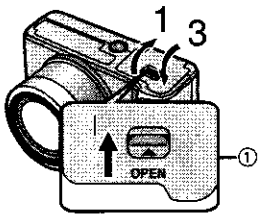
THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

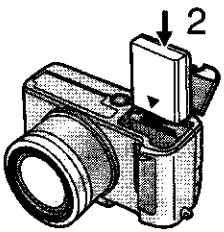
2 **Attach the battery to the AC adaptor and charge it.**
- The [CHARGE] indicator lights and charging starts.

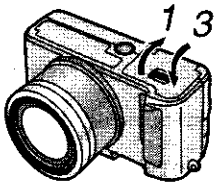
3 **When the [CHARGE] indicator stops lighting, charging is finished.**

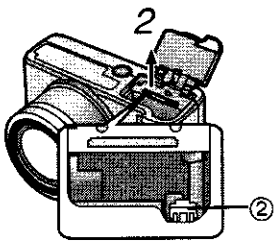
4 **Remove the battery from the AC adaptor.**
- Do not connect the DC cable during charging.
- The battery becomes warm after use or charging. The camera also becomes warm during use. However, it is not malfunction.

Inserting the Battery









[Preparation]

- Check that the power switch is set to [STANDBY] and the lens tube is stored.

1 **Slide the lever in the direction of the arrow to open the Memory Card/battery door ①.**

2 **Insert the charged battery all the way in, until it is locked.**

3 **Close the battery door.**

[Removing the battery]

1 **Slide the lever in the direction of the arrow to open the Memory Card/battery door.**

2 **Press the lock ② in the direction of the arrow to remove the battery.**

3 **Close the Memory Card/battery door.**

- If you will not be using the camera for a long time, remove the battery. (When you insert the battery again, set the date)
- Before removing the battery from the camera, set the power switch to [STANDBY].
- The battery supplied with this camera is exclusively designed for this camera. Do not use with any other equipment.
- Close the flash.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

■ Battery indicator

The remaining battery power is displayed on the LCD monitor/Viewfinder. (This is not displayed when using AC adaptor)

: The battery power is sufficient

: The remaining power is a little low

: The remaining power is low

: Recharge or replace the battery

■ Charging time and available recording time

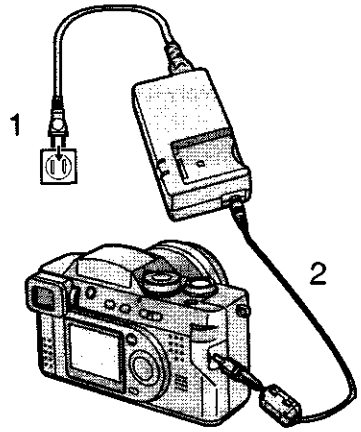
(LCD on, shooting once every 30 seconds, flash every other shot. Measured using supplied 8 MB SD Memory Card)

	Charging time	Continuous recording time (recordable number)
Supplied battery pack	Approx. 80 min.	Recording with LCD monitor Approx. 100 min. (equal to 200 still pictures)
		Recording with Viewfinder Approx. 120 min. (equal to 240 still pictures)

■ Charging environment and charging error

- Charge the battery in a place with a temperature of 50 - 95 F (10 - 35 °C). (The battery should also be the same temperature)
- When charging starts, the status indicator lights. If, after charging starts, the status indicator blinks at about 1 second cycles, this indicates a charging error.
  In this case, remove the AC adaptor from the electrical outlet, remove the battery and check if both room and battery temperature is too low or high and then charge it again. If the problem persists, consult the dealer or your nearest servicentre.

Connecting to an Electrical Outlet



If you use an AC adaptor and connect it to an electrical outlet, you can use the camera without worrying about battery discharge. The connection method is the same as explained in "Charging the Battery". (P14)

- During use, the camera becomes warm; this is not a malfunction.

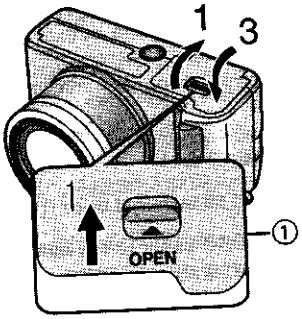
1 **Connect the AC cable.**

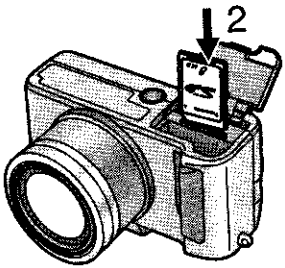
2 **Open the DC IN terminal door ①.**

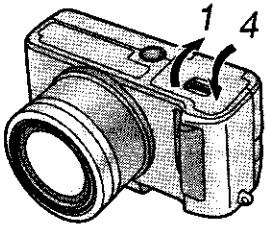
3 **Connect the DC cable to the camera.**

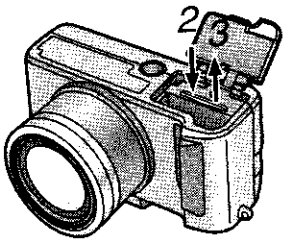
- Disconnect the AC adaptor and DC cable.
- The battery cannot be charged with the AC adaptor connected.

Inserting the Card









[Preparation]
- Check that the power switch is set to [STANDBY] and the lens tube is stored.

1 **Slide the lever in the direction of the arrow to open the Memory Card/battery door ①.**

2 **Insert the card all the way in until it clicks.**
- Check the direction of the card.
- Do not touch the connection terminals on the back side of the card.

3 **Close the Memory Card door.**

[Removing the card]

1 **Open the Memory Card door.**

2 **Press the card to release.**

3 **Pull the card out.**

4 **Close the Memory Card/battery door.**

- Remove the card after turning off the power.
- If the Memory Card door cannot completely close, take the card out and insert it again.
- If the card cannot be fully inserted, verify whether the direction of the card is correct.
- We recommend that you use a Panasonic branded SD Memory Card. (Use only the genuine card)
- Close the flash.

■ Access to the card

When the card is being accessed, the red flash/access indicator ① lights.

When the flash/access indicator lights, do not remove the battery, open the Memory Card door, or pull out the card. The card and the card contents may be destroyed and the camera may not operate normally.

There is a risk that the data on the card may be damaged or erased due to the electrical noise, static electricity or the defects of camera/card, please back up your data to your PC using USB connection. (P86)

■ SD Memory Card (supplied) and MultiMediaCard (optional)

The SD Memory Card and MultiMediaCard are small, lightweight, removable external cards. The SD Memory Card is equipped with a write protection switch that can inhibit writing and formatting. (When the switch is moved towards the [LOCK] side, it is not possible to write or delete data on the card and format it. When the switch is unlocked, these functions become available)

SD Memory Card

- RP-SDH512 (512MB)
- RP-SDH256 (256MB)
- RP-SD128B (128MB)
- RP-SD064B (64MB)
- RP-SD032B (32MB)
- RP-SD016B (16MB)
- RP-SD008B (8MB)

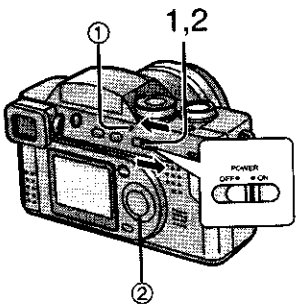
MultiMediaCard

- After recording motion images using the MultiMediaCard, the screen may appear grey, but this is not a malfunction.

Turning Power on/off

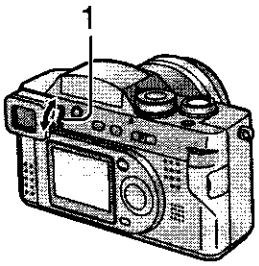
1 **Set the power switch to [OPERATE].**
- The power indicator ① lights.

2 **Set the power switch to [STANDBY].**



- When turning on the power in the recording mode, do not put any obstacle in front of the lens.
- Please be sure to remove the lens cap (P21) before you switch on the camera in recording mode. If not, the message "REMOVE LENS CAP AND PRESS SET BUTTON" appears on the LCD monitor/Viewfinder. Please remove the lens cap and press [REVIEW/SET] button ①.
- Do not make a pressure on the lens when the lens comes out. Wipe the lens when the lens does not come out.

Adjusting the Viewfinder (Diopter Adjustment)



This camera's Viewfinder offers a diopter adjustment. It allows the user to make adjustments related to each users individual vision characteristics. Please adjust this feature before using the camera.

[Preparations]

- Press [DISPLAY] button to make the Viewfinder display.

1 **Adjust the diopter, rotating the diopter adjustment dial.**

Attaching the Lens Hood

When attaching the lens hood during the shining daytime, the sunshine is interrupted directly and you can take the beautiful picture.

[Preparation]

- Set the power switch to [STANDBY] and the lens tube is stored.

1 **Remove the lens ring.**

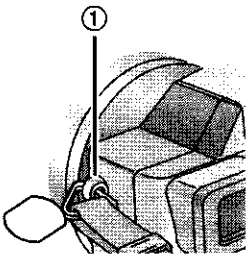
2 **Attach the lens hood adaptor.**

3 **Attach the lens hood.**

4 **Point the lens hood and adaptor.**

- Close the flash.

Attaching the Strap

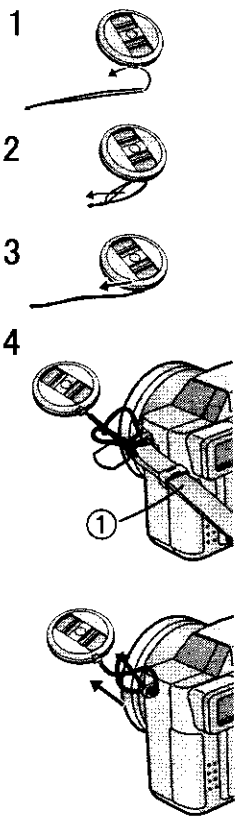


1 **Open with the supplied metal plate the triangular metal top of the strap and attach it to the eyelet ① of the camera.**

2 **Attach the strap.**

3 **Attach the strap to the other side of the camera in the same way.**

Attaching the Lens Cap



When you are not recording or during playback, protect the lens surface by attaching the supplied lens cap.

1 **Let the top of the string pass through the lens cap.**

2 **Let the opposite side of the string pass through the circular part of the string.**

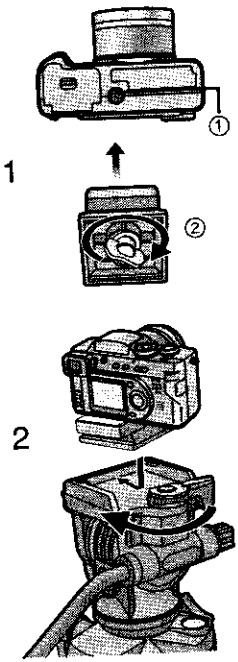
3 **Pull in the direction of the arrow.**

4 **[When attaching the strap]**
Let the top of the lens cap string pass through the top of the triangular part of the strap and install as shown in the picture.

5 **[When not attaching the strap]**
Let the top of the lens cap string pass through the strap eyelet as shown in the picture.

- Remove the lens cap before turning the camera on.
- Confirm that the strap is attached firmly.

Using the Tripod



Using a tripod (customer supplied), can minimize or eliminate picture motion jitter associated with physical movement. This is especially true when in the tele position or when using slow shutter speeds.

[Preparation]

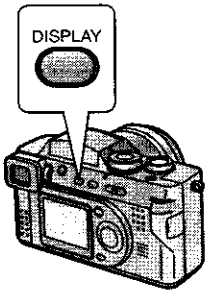
- Set the power switch to [STANDBY] and the lens tube is stored.

1 **Align the camera holder ② with the tripod receptacle ① of the camera and attach.**

2 **Install the camera holder into the tripod.**

- To avoid damaging the camera, be careful not to over tighten the tripod.
- Read the tripod operating instructions carefully.

Using the LCD Monitor/Viewfinder

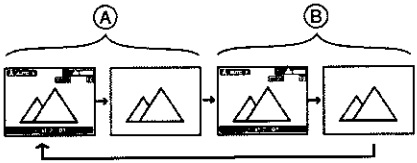


Every time you press the [DISPLAY] button, the display of the LCD monitor/Viewfinder changes as shown below.

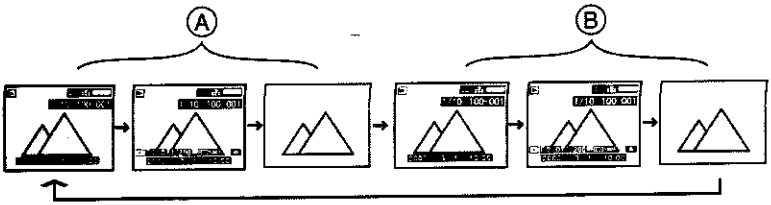
[In recording]

Ⓐ LCD monitor

Ⓑ Viewfinder

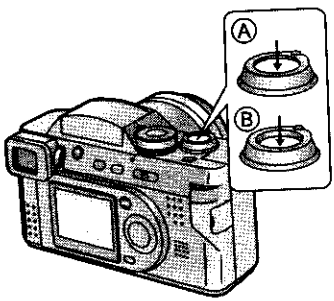


[In playback]



• These settings are retained in the Record mode, even if the power is turned off.

The Shutter Button (Pressing halfway/Pressing fully)



The shutter button is pressed in 2 steps: "pressing halfway" and "pressing fully".

Pressing halfway (Press lightly) Ⓐ

- Focus and exposure are locked.

Pressing fully (Press all the way) Ⓑ

- The picture is captured. In motion image mode, the recording starts.

- You can adjust volume of the operational sound in the menu. (P80)
- If you press the shutter button fully in a single stroke, the captured picture may appear shaken or unfocused. (The camera may be moved during capturing)

The Mode Dial

You can choose among 9 modes, as shown below.

: Playback (P60)
Playback recorded images.

: Easy recording (P43)
You can take the pictures easily because the necessary setting menus are minimized. The LCD monitor/Viewfinder display becomes colorful.

: Normal Picture (P28)
The shutter speed and the aperture value are automatically adjusted. Also the settings can be adjusted is limited. This mode is for beginners.

: Macro mode (P57)
When you take pictures from a distance closer than 1 m, set the camera in macro mode. This allows you to get closer to the subject up to 3 cm.

: Portrait mode (P44)
Portrait mode lets you achieve the depth of focus effect easily when you take portrait photos. The subject looks sharp and outstanding with an unfocused background. You can place the subject much closer and allow proper distance between subject and background.

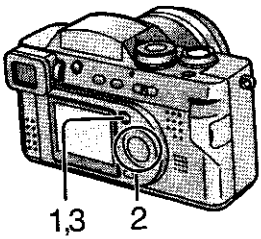
: Sports mode (P45)
When you take pictures of outdoor sports, this mode let you capture the still action photo easily. Please note that this mode is suitable to capture subjects from distances more than 5 m and in daylight situations.

: Night portrait mode (P46)
When you take pictures of, for example, your friends in front of beautiful night illumination scenery, this mode let you get the appropriate exposure for your subject as well as the background, using flash and slow shutter. Since slow shutter is set, use of tripod is recommended. Subject should be placed within the range of flash light.

: Panning mode (P48)
When you take the pictures of the subjects moving for a certain direction like a runner or car, subject looked almost still.

: Motion images (P32)
Recording motion images.

Operating the Menu



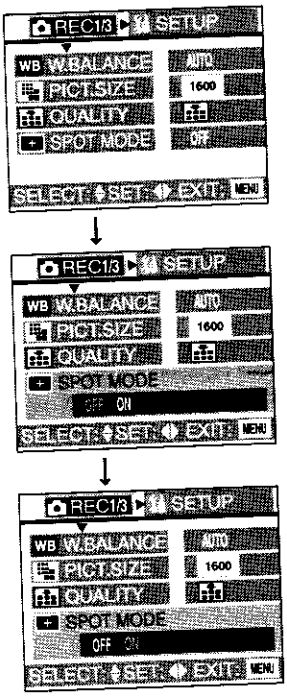
By operating the menu you can set the settings of REC or playback mode. You can also set the date and time, the operational sound and various other settings. Follow these instructions.

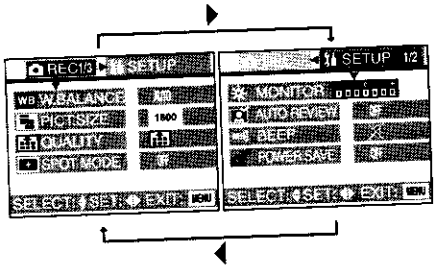
1 **Press the [MENU] button.**

- If you set the mode dial ① to the recording mode, the REC menu is displayed; if you set it to the playback mode [▶], the playback menu is displayed.

2 **Press ▲/▼ to choose the item and press ◀/▶ to confirm this setting.**

- With step 2, by pressing ▶, you can access the setup menu. (If you press ◀, you can go back)



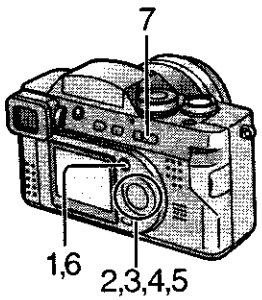


3 **Press the [MENU] button.**

- The menu will disappear.

Setting the Date/Time (Clock Set)

You can set the year from 2002 to 2099. The 24-hour system is used.



1 **Press the [MENU] button.**

2 **Press ► to make the setup menu appear.**

3 **Press ▲/▼ to select [CLOCK SET], and then press ►.**

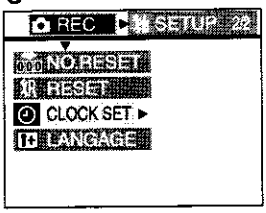
4 **Press ▲/▼/◄/► to set date and time, and then press ►.**

5 **Press ▲/▼ to select [M/D/Y], [D/M/Y] or [Y/M/D].**

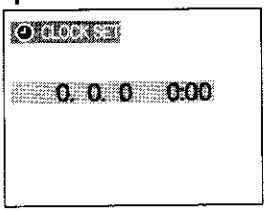
6 **Press the [MENU] button twice.**
- The menu will disappear.

7 **Check if the date/time setting is displayed correctly, after turning the camera [STANDBY] and [OPERATE].**

3



4



- If the message [PLEASE SET THE DATE/TIME] appears, charge the battery about 2 hours and set the date and time again.

Using the AF Trigger

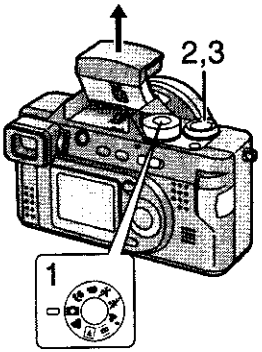
You can select the button to set the auto focus from the menu.

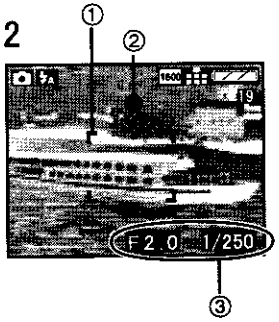
[Preparation]
• Set the mode dial. (P25)

1 **Press the [MENU] button.**
2 **Press ▲/▼ to select [AF TRIGGER].**
3 **Press ◄/► to select the button.**
  • [●] : Shutter button
  • [FOCUS] : [FOCUS] button
4 **Press the [MENU] button.**
  • The menu will disapear.

When setting [COUNT.AF] to [ON], [AF TRIGGER] is fixed to [●].

Taking Pictures





By only pressing the shutter button, the exposure (shutter speed and aperture value) will be automatically adjusted and the picture will be taken. You can take pictures when using the flash, in a dark place.

[Preparations]
- Insert the card. (P16)
- Set the power switch to [OPERATE]. (P18)
- Set the AF mode. (P28)

1 **Set the mode dial to normal picture mode [[●]].**

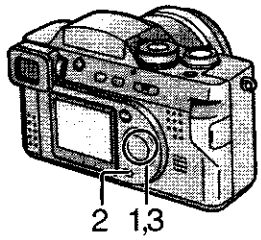
2 **After centering the subject in the focus area ① on the LCD monitor/Viewfinder, press the shutter button halfway or the [FOCUS] button.**
- When the focus is adjusted, the focus indication [●] ② appears.
- When the focus indication flashes, the focus is not adjusted. Press the shutter button halfway or the [FOCUS] button to adjust the focus again.
- The shutter speed and the aperture value ③ are automatically adjusted and displayed on the LCD monitor/Viewfinder.
- When the subject is out of the AF target or the focus area, use the AF/AE lock. (P51)

3 **Press the shutter button fully to take the picture.**
- After taking a picture, when the auto review (P79) is set to [ON], the picture is displayed on the LCD monitor/Viewfinder for about 1 or 3 seconds.

- When power saving time is set, if you do not operate the camera for a while, it is automatically turned off at the set time. To operate the camera again, press the shutter button or turn the power switch first to [STANDBY] and then to [OPERATE]. (P81)
- There are times when the brightness of the LCD monitor/Viewfinder differs from that of the recorded pictures. In particular, when taking pictures in dark places with a long time exposure, darkness appears on the LCD Monitor/Viewfinder, but the recorded pictures are bright.
- If the exposure is not properly set, the color of the aperture value and the shutter speed value.
- In the following cases, the focus is not adjusted properly.
  1 Recording a scene including subjects both near and far
  2 Recording a scene over the dirty glass
  3 Recording surrounding a shining scene
  4 Recording in a dark place
  5 Recording moving subject
  6 Recording a subject with a little contrast
- We recommend that you set the clock setting again before taking pictures.
- When setting the flash to Slow sync./Red-eye reduction or Forced OFF and taking a picture in a dark place, we recommend that you use the tripod to prevent the shutter jiggle.
- Be sure to close the flash after taking a picture.

Checking the Last Picture (Review)

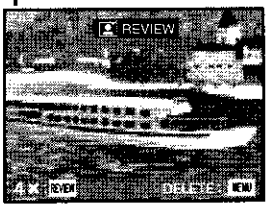
After taking a picture, when auto review (P79) is set to [ON], the captured picture is displayed on the LCD monitor/Viewfinder for about 1 or 3 seconds, but you can also check the picture by following the methods shown below.



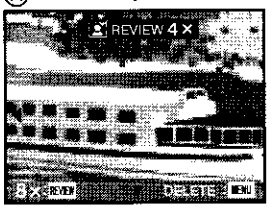
1 **After taking a picture, press the [REVIEW/SET] button.**

- The last captured picture is displayed for about 5 seconds. If you press the [REVIEW/SET] button again, the captured picture is zoomed 4 times (Ⓐ) and 8 times if you press once again. You can also change the position with ▲/▼/◀/▶.

1



Ⓐ



■Erasing the captured picture during the review

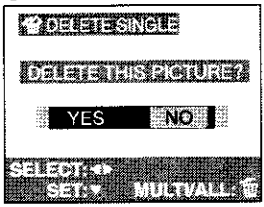
2 **Press the [🗑] button.**

3 **When the message [DELETE THIS PICTURE?] is displayed, press ▲/▼ to select [YES].**

4 **Press the [REVIEW/SET] button.**

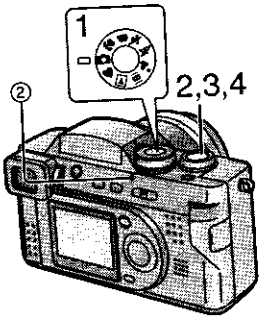
- The picture is erased.
- Once erased, pictures cannot be recovered.

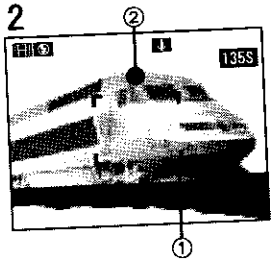
3



- When using the burst mode [L]/[H], you can see only the first picture with the review.
- In motion image mode [], Review cannot be used.
- Once you turn off the camera or rotate the mode dial, you cannot use Review function.

Recording Motion Images





With this camera you can also record motion images. (If using the supplied 8MB SD Memory Card, it is possible to record for about 75 seconds)

[Preparations]

- Insert the card. (P16)
- Set the power switch to [OPERATE]. (P18)
- Set the AF mode. ()

1 **Set the mode dial to motion image mode [ ].**

2 **Center the subject in the focus area ① on the LCD monitor/Viewfinder and press the shutter button halfway or the [FOCUS] button.**

- When the focus is adjusted, the focus indication [●] appears. (② Focus indication)

3 **By pressing the shutter button fully, the recording starts.**

- The audio REC starts simultaneously.

4 **By pressing the shutter button fully again, recording stops.**

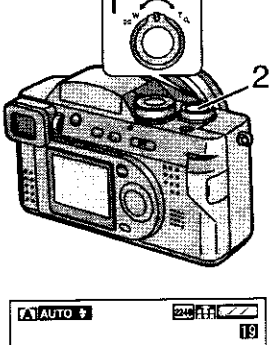
- If during the recording the memory of the card becomes full, the recording is stopped automatically.

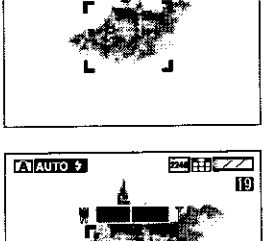
■ In motion image record mode, the settings listed below are not available

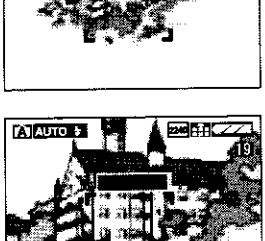
- Picture size (P41)
- Built-in flash (P35)
- White balance (P54)
- ISO sensitivity (P56)
- Audio recording

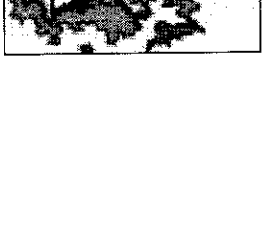
- The remaining time displayed on the LCD monitor/Viewfinder is an approximation.
- You cannot record motion images without audio.
- If using the MultiMediaCard, after recording motion images, the screen may appear grey, but this is not a malfunction.
- After recording starts, the auto focus and zoom are locked (with the first frame).
- Recording could suddenly stop when recording motion images.
- When playing back the motion image that have been recorded with this digital camera, the quality of pictures may be deteriorated or pictures may not be able to be played back.

Using the Optical Zoom









With this function, you can make people and subjects closer, and landscapes can be captured in wide angle, with the 3 times optical zoom.

[Preparation]

- Set the mode dial. (P25)

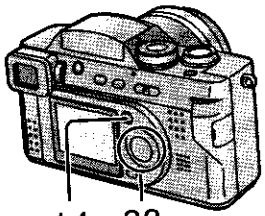
1 **Aim the camera at the subject and adjust the size with the zoom lever.**
To make subjects closer (Tele): Rotate towards T as far as it goes.
To make subjects wider (Wide angle): Rotate towards W as far as it goes.

2 **Take pictures.**

- The recording method is the same as in "Taking Pictures". (P28)

- The focus is adjusted at a distance of more than 30 cm. For details on Macro mode, read P57.

Using the Digital Zoom



It is possible to further magnify a subject already magnified 12 times with the optical zoom by 2 more times, with the digital zoom, thereby reaching a maximum of 24 times.

[Preparation]
- Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [D. ZOOM].**

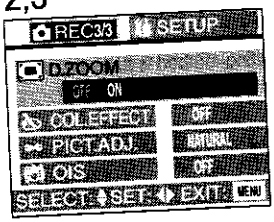
3 **Press ◄/► to set to [ON].**

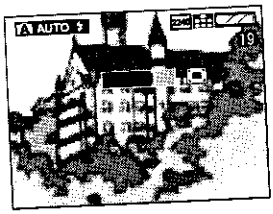
4 **Press the [MENU] button.**
- The menu will disappear.

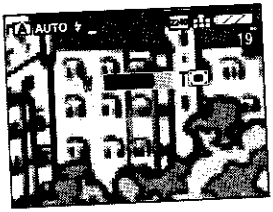
- The zoom adjustment and recording method are the same as in "Using the Optical Zoom". (P33)

- In motion image mode [ ], you cannot use the digital zoom.
- When setting the digital zoom to [ON], the display of the LCD monitor/Viewfinder cannot be set to off.
- When using the digital zoom the picture quality becomes deteriorated.

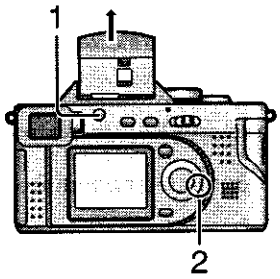
2,3







Taking Pictures with the Built-in Flash

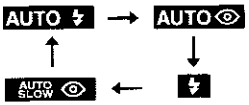


[Preparation]
- Set the mode dial. (P25)

1 **Slide the flash open button to open the Flash.**

2 **Press [ ].**
- Every time you press the [ ] button, the available settings will appear as shown below. (There are settings that cannot be set according to the REC mode. Those that cannot be set are not displayed when pressing the [ ] button. Refer to the table on the left.)

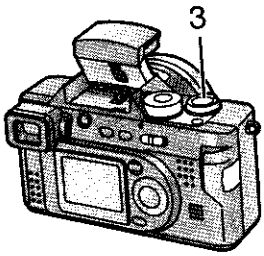
	—	○	○	—
	○	○	○	○
	○	○	○	○
	○	○	○	—
	○	○	○	—
	—	—	—	○
	○	○	○	—
	—	—	—	—

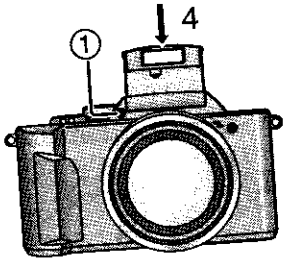


: AUTO
The flash fires automatically according to the recording situation.

: AUTO/Red-eye reduction
The flash fires automatically according to the recording situation and simultaneously it reduces the red-eye phenomenon (when a subject's eyes appear red in flash light).
Use it when you take pictures of people or animals in dark places.

: Forced ON
The flash fires in every capturing.
Use this setting when your subject is backlighted.





: Slow sync./Red-eye reduction

When you take a picture with a dark background landscape, it makes the flash fire and the shutter speed slow, so that the dark background landscape will become bright. Simultaneously it reduces the red-eye phenomenon.

: Forced OFF

When you do not open the flash, this mode is set.

Even being in dark places, the flash does not fire.

Set it when you take pictures in places where using flash is not allowed.

3 Take pictures.

The recording method is the same as in "Taking Pictures". (P28)

To close the flash

Press in the direction of the arrow until it clicks.

- Be sure to close the flash when you do not use it.

- The available flash range is about 30 cm - 2.1 m. (In macro mode, it is about 30 cm - 50 cm)
- Do not cover the flash sensor ① with your fingers or other items. Otherwise, brightness cannot be perceived.
- In motion image mode [ ], setting is fixed to the Forced OFF [ ].
- When you set to burst mode [ ] or auto bracket, only 1 picture is taken for every flash firing.
- When the flash does not open, setting is fixed to the Forced OFF [ ].
- In night portrait mode, setting is fixed to the Forced OFF [ ].
- When you take the picture using the flash with the lens hood attached, the flash light may be interrupted by the hood.

Using the Optical Image Stabilizer

When using this function at the scene the shutter jiggle is easy to happen, you can minimize the shutter jiggle.

[Preparation]
Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [OIS] and press ►.**

3 **Press ◄/► to select [ON].**

4 **Press the [MENU] button.**
- The menu will disappear.

5 **Take a picture.**
- The recording method is the same as in "Taking Pictures". (P28)
- When too much jiggle happens or taking a picture chasing the moving subject, it may not be stabilized.
- The OIS function may be difficult to be effective in the digital zoom zone.
- We recommend that you set [OIS] to [OFF] when using the tripod.

Using the Continuous AF

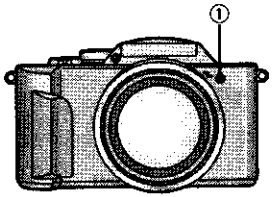
Using this function, you can adjust the focus soon even if the subject changes because the auto focus works continuously.

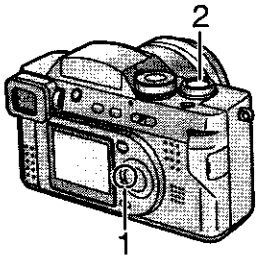
[preparation]
Set the mode dial. (P25)

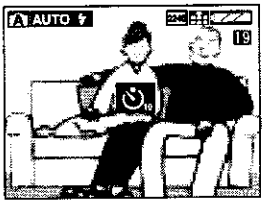
1 **Press the [MENU] button.**
2 **Press ▲/▼ to select [CONT.AF] and press ▶.**
3 **Press ◀/▶ to select [ON].**
4 **Press the [MENU] button.**
5 **Take a picture. "Taking Pictures". (P28)**

- When setting [CONT.AF] to [ON], [AF TRIGGER] is fixed to [ ].
- In the easy recording mode, [CONT.AF] is fixed to [ON].

Taking Pictures with the Self-timer







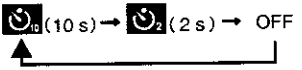
When you set the self-timer, the picture is automatically taken after 10 seconds (or 2 seconds).

[Preparation]

- Set the mode dial. (P25)

1 **Press the [⏲] button.**

- Every time you press it, what is displayed changes as shown below.



: Self-timer set to 10 seconds

: Self-timer set to 2 seconds

When these indicators are not displayed, self-timer setting is cancelled.

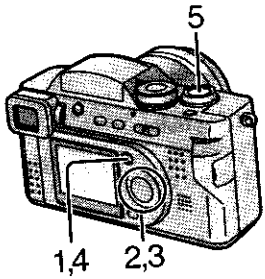
2 **Press the shutter button fully.**

- The self-timer indicator ① blinks and the shutter is activated after 10 seconds (or 2 seconds).
- When setting the self-timer, the focus and exposure are not adjusted by pressing the shutter button halfway. When pressing the button fully, they are automatically adjusted just before recording.
- Before taking a picture, if you press the [MENU] button, the self-timer setting is cancelled.

- In normal picture mode [ ], you can only set to 10 seconds [ ].
- In motion image mode [ ], it is not possible to use the self-timer.
- In burst mode [L]/[H], the self-timer setting applies to the first picture only.
- We recommend that you use the tripod when setting the self-timer.

Taking Pictures with Audio

You can take a picture with audio for 5 seconds.



[Preparation]

- Set the mode dial. (P25)

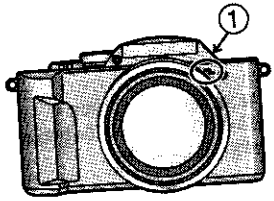
1 **Press the [MENU] button.**

2 **Press ▲/▼ to set to [AUDIO REC.].**

3 **Press ◀/▶ to set to [ON].**

4 **Press the [MENU] button.**

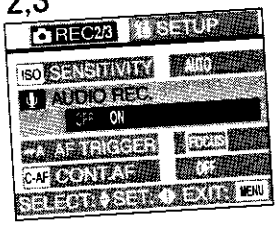
- The menu will disappear.
- This icon [ ] will appear on the LCD monitor/Viewfinder.



5 **Press the shutter button fully and take a picture.**

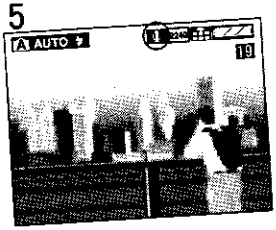
- It is not necessary to continue pressing the shutter button.
- Audio is recorded from the built-in microphone ① of the camera.
- 5 seconds later, the audio recording is stopped automatically.

2,3



- When setting to burst mode or auto bracket, it is not possible to take a picture with audio. (P42, P50, P58)

5

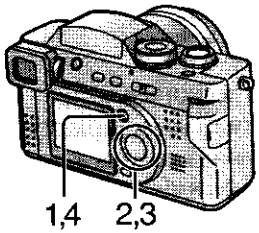


Changing the Picture Size

You can choose among 3 picture size settings.

[Preparation]

- Set the mode dial. (P25)



1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [PICT. SIZE].**

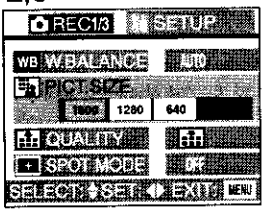
3 **Press ◄/► to set the picture size.**

- [1600]: 1600 × 1200 pixels
- [1280]: 1280 × 960 pixels
- [640]: 640 × 480 pixels

4 **Press the [MENU] button.**

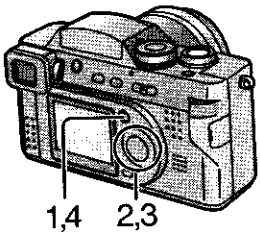
- The menu will disappear.

2,3

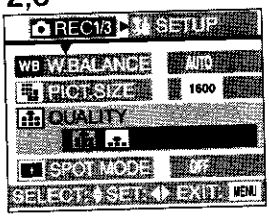


- In motion image mode [▣], the picture size is fixed to 320 × 240 pixels.
- The smaller you set the picture size, the more pictures you can store on the Memory Card. In addition, a small data volume allows you attach the picture to an e-mail or post it on a web site more easily.
- If you set a larger picture size, the printed picture will be clearer, especially with larger sized prints.

Changing the Quality (Data Compression Ratio)



2,3



You can choose among 2 quality levels (Data Compression Ratio).

[Preparation]
- Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [QUALITY].**

3 **Press ◄/► to select the quality (Data Compression Ratio).**

- : Fine (Low compression)
  It gives priority to picture quality to record high quality pictures.
- : Standard (Standard compression)
  It gives priority to the number of recordable pictures and records standard quality pictures.

Quality and number of recordable pictures (8MB SD Memory Card)

Picture size	Quality	
1600 x1200	8	12
1280 x 960	18	34
640 x 480	41	68
In motion image mode	Approx.75 s	

4 **Press the [MENU] button.**
- The menu will disappear.

- In motion image mode [ ], quality cannot be modified.
- It may happen that pictures appear like a mosaic depending on the scene characteristics.
- The number of recordable pictures corresponds to the capacity of the supplied 8MB SD Memory Card. (If you mix fine quality and standard quality, the number of recordable pictures changes)
- Remaining frame which is displayed on the LCD monitor/Viewfinder may not correspond with recorded frames, however, this is not a malfunction.

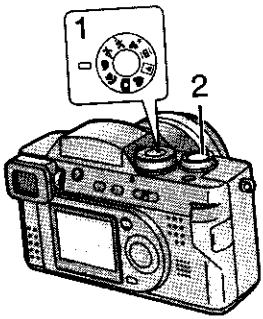
Taking Pictures With the Easy Recording Mode

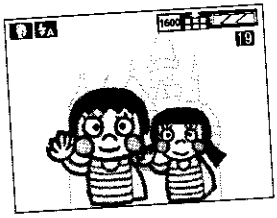
1 **Set the mode dial to Easy mode [♥].**

2 **Take a picture.**

The recording method is the same as in "Taking Pictures ". (P28)

Taking Pictures with the Portrait Mode





Portrait mode allows you to achieve the depth of focus effect easily when you take portrait photos. The subject looks sharp and outstanding against an unfocused background. It will be best place the subject much closer and allow for proper distance between subject and background.
Please note that this mode is suitable for outdoor situations under sunlight.
When you view the subject under differing lighting situations, you may need to open the flash. Flash mode will be [Forced ON] in the default position and you can also select [Auto/Red-eye reduction]. ([AUTO] can not be selected in this mode.)

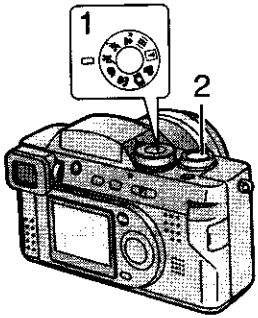
1 **Set the mode dial to Portrait mode [ ].**

2 **Take a picture.**

The recording method is the same as in "Taking Pictures ". (P28)

- White balance is fixed to Daylight [ ].

Taking Pictures with the Sports Mode

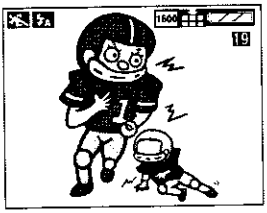


When you take photos of outdoor sports, this mode allows you to capture a still action photo easily. Please note that this mode is suitable to take photos of the subject from distances of more than 5 m and in **daylight** situations.

1 **Set the mode dial to Sports mode [ ].**

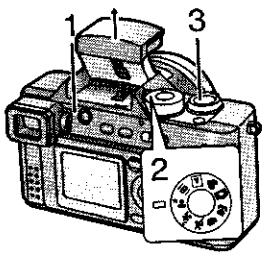
2 **Take a picture.**

The recording method is the same as in "Taking Pictures". (P28)



- White balance is fixed to Daylight [ ].

Taking Pictures with the Night Portrait Mode



The Night Portrait mode combines the electronic flash with a "slow shutter" mode. This unique feature allows you to photograph close subjects against the natural night background. Since the shutter speed is slow, we highly recommend using a tripod to steady the camera. The subject should be positioned within the recommended distance for the camera's flash can illuminate. (about 30cm-2.1m)

[Preparation]

- Set the operational mode dial. (P25)

1 **Press the flash open button to open the flash.**

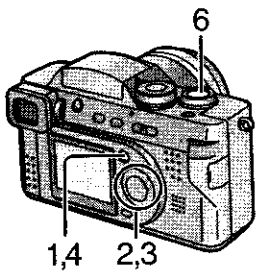
2 **Set the mode dial to Night portrait mode [ ].**

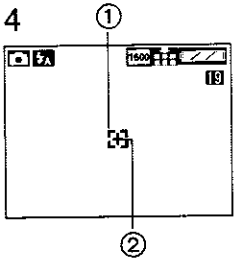
3 **Take a picture.**

The recording method is the same as in "Taking Pictures". (P28)

- Be sure to close the flash when you do not use the flash.
- Flash setting is fixed to Slow sync./Red-eye reduction .
- White balance is fixed to Daylight [ ].
- If you do not open the flash using this mode, you can take the night illumination scenery itself with slower shutter speed.

Taking Pictures with the Spot Mode





When this mode is selected, both autofocus area and exposure will be set to spot mode. This is suitable when you take pictures in delicate light conditions and intend to spot on a limited area.

[Preparation]
- Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SPOT MODE].**

3 **Press ◀/▶ to set to [ON].**

4 **Press the [MENU] button.**
- The menu will disappear.
- The spot AF area ① and spot metering target ② appears.

5 **Center the subject in the spot AF area.**

6 **Take a picture.**
- The recording method is the same as in "Taking Pictures (AUTO Mode)". (P28)

- In motion image [▦] mode, it is not possible to record with spot AF.
- Focus is fixed to spot AF.
- Surroundings become dark or whitish depending on the subject to set to appropriate exposure in the spot AF area.
- If the subject is out of the spot AF area, use the AF/AE lock.

Taking Picture with the Panning Mode

You can choose among 9 modes, as shown below.

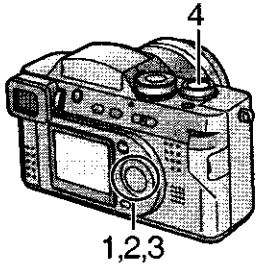
1 **Set the mode dial to Panning mode [ ].**

2 **Take a picture.**

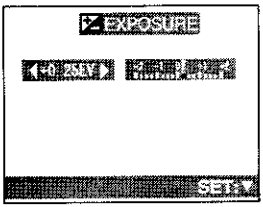
Press the shutter button chasing the subject. It is important to chase slowly with your arm closed and your waist turned using whole the body, without only the camera.

- White balance is fixed to Daylight [ ].
- [OIS] is set to [ON] when moving the camera vertically.

Compensating the Exposure



2



In some situations the illumination of the background and your subject may differ. Auto exposure systems may not always calculate the proper exposure correctly. This is a normal situation. This feature allows you to manually compensate the exposure.

[Preparation]
- Set the mode dial. (P25)

1 **Press the [ ] button to select [EXPOSURE].**

2 **Press ◄/► to compensate the exposure.**
- You can compensate from -2 EV to +2 EV with 0.25 EV step.
(EV is an abbreviation of Exposure Value, and it is the amount of light given to the CCD by the aperture value and the shutter speed. EV0: the exposure capacity with the aperture value F1.0 and the shutter speed 1 second
When the aperture value or shutter speed rises, EV1, EV2, EV3... rise too.)
- The compensation state is not reflected on the LCD monitor/Viewfinder.

3 **Press the [REVIEW/SET] button.**
- The compensation window will close.

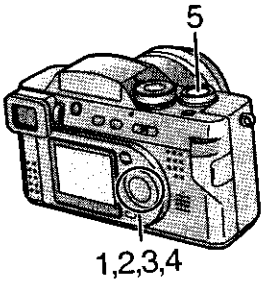
4 **Take a picture.**
- The recording method is the same as in "Taking Pictures". (P28)

- Depending on the shutter and aperture value, the range which is possible to compensate exposure will be limited.

Shutter speed	Aperture value
8 - 1/500	2.0 - 8.0
1/750	5.6 - 8.0
1/1000	8.0

Taking Pictures with Auto (AE) Bracket

Pressing the shutter button once, the camera will automatically take 3 pictures changing exposure according to the set exposure compensation value.



[Preparation]

- Set the mode dial. (P25)

1 **Press the [ ] button twice to select [AUTO BRACKET].**

2 **Press ◄/► to set the exposure compensation range.**

- Select among 0.25EV, 0.5EV, 0.75EV, 1.0EV. Setting to [OFF], auto bracket is unavailable.

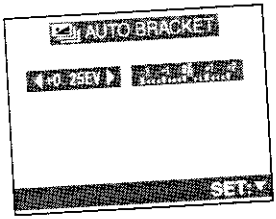
3 **Press ▼.**

- Press ▲/▼ to select step 2 or 4.

4 **Press the [REVIEW/SET] button.**

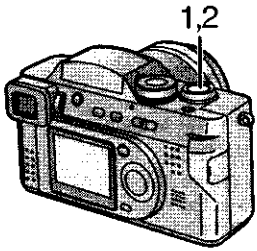
5 **Take a picture.**

- The recording method is the same as in "Taking Pictures". (P28)



- When flash fires, you can take only 1 picture.

Using the AF/AE Lock



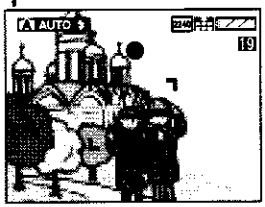
If the subject is out of the AF target or the focus area and you press the shutter button, the subject's focus is not adjusted. After locking focus and exposure (AF/AE lock), you can take a clear picture with adjusted focus.
AF: Auto focus
AE: Auto exposure

[Preparation]
• Set the mode dial. (P25)

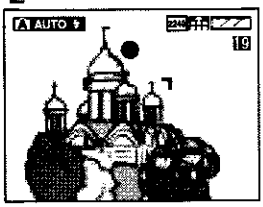
1 **Aim the camera at the subject on which you want to adjust the focus to enter the focus area on the LCD monitor/Viewfinder and then press the shutter button halfway (AF/AE lock) to set it.**
• When the focus is adjusted, the focus indication [●] appears.

2 **Move the camera keeping the chosen composition and press the shutter button all the way.**

1

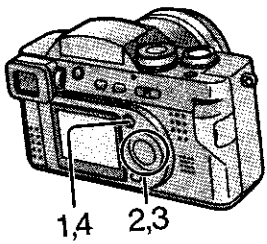


2



• Before pressing the shutter button, you can set the AF/AE lock any time you want.

Adjusting the Color Effect



[Preparation]
- Set the mode dial. (P25)

1 **Press the [MENU] button.**

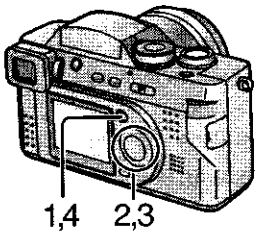
2 **Press ▲/▼ to select [C.EFFECT] and press ►.**

3 **Press ▲/▼/◄/► to select [OFF], [COOL], [WARM] or [B/W].**
- COOL: The picture becomes bluish.
- WARM: The picture becomes reddish.
- B/W: The picture becomes black and white.

4 **Press the [MENU] button twice.**
- The menu will disappear.

2,3

Picture Adjustment (Natural/Standard/Vivid)



[Preparation]

- Set the mode dial. (P25)

1 **Press the [MENU] button.**

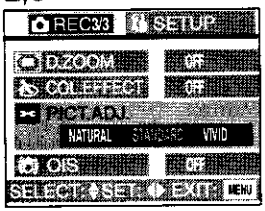
2 **Press ▲/▼ to select [PICT. ADJ.] and press ►.**

3 **Press ▲/▼/◄/► to set [CONTRAST], [STANDARD] and [SATURATION].**

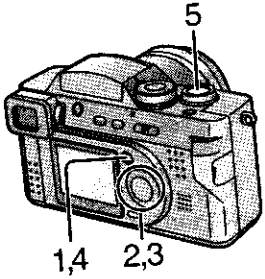
4 **Press the [MENU] button twice.**

- The menu will disappear.

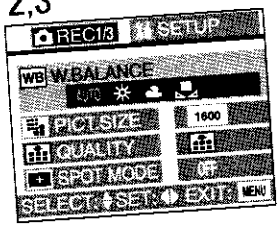
2,3



Setting the White Balance



2,3



Auto White Balance is designed to automatically adjust the camera to produce natural flesh tones. In most situations it works fine. In some situations where several different types of lighting are present, enhanced performance can be achieved by setting the white balance manually.

[Preparation]

- Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [W.BALANCE].**

3 **Press ◄/► to select the mode.**

- AUTO: if the auto white balance is set
- (Daylight): for recording outdoors on a bright day
- (Cloudy): for recording under cloudy and shady sky
- (Halogen): for recording under halogen lighting
- (Fluorescent): for recording under fluorescent lighting
- (White set): for manual setting (Read the following page where the manual settin is explained in detail)

4 **Press the [MENU] button.**

- The menu will disappear.

5 **Take a picture.**

- The recording method is the same as in "Taking Pictures (AUTO Mode)". (P28)

- In normal picture [ ] or macro mode only, white balance can be set.

Here the white set mode of white balance is explained.

[Preparation]
- Set the mode dial. (P25)

1 **Press the [MENU] button.**

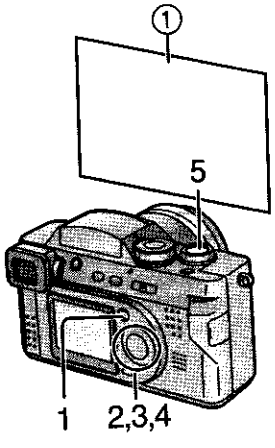
2 **Press ▲/▼ to select [W.BALANCE].**

3 **Press ◄/► to set to white set [ ].**

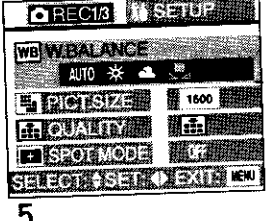
Only when setting the white balance again

4 **Press ►.**
- The menu will disappear.

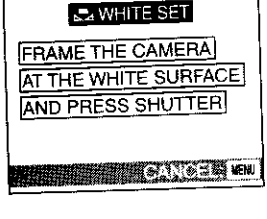
5 **Aim the camera at a white paper or similar objects so that it completely fills the frame to white on the screen and press the shutter button all the way.**
- White balance is set.



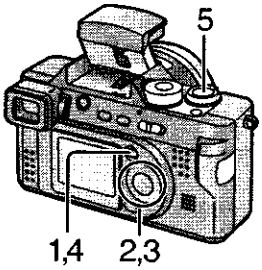
2,3



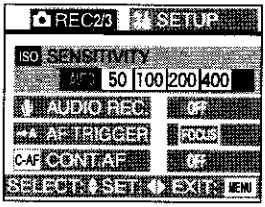
5



Setting ISO Sensitivity



2,3



ISO sensitivity is a value that corresponds to the sensitivity to light. The higher it is, the better the camera performs in dark places.

[Preparation]

- Set the mode dial. (P25)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SENSITIVITY].**

3 **Press ◀/▶ to select the sensitivity.**

- AUTO: If "AUTO" is selected and Flash mode is "Forced OFF", if available light needs shutter speed slower than 1/8, the ISO sensitivity is automatically adjusted up to ISO 200 and shutter speed stays 1/8. If your picture is still too dark, please use the flash.
- 50 ISO50
- 100 ISO100
- 200 ISO200
- 400 ISO400

4 **Press the [MENU] button.**

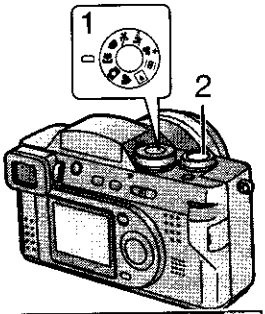
- The menu will disappear.

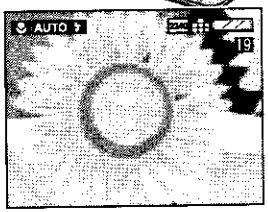
5 **Take a picture.**

- The recording method is the same as in "Taking Pictures". (P28)

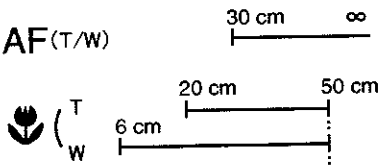
- In motion image [▦] mode, ISO sensitivity cannot be set.
- When you take a picture in high ISO sensitivity, the picture noise appears and the picture quality deteriorates.

Taking Pictures with Macro Mode





If the camera lens is at a distance of 6 cmto 50 cm from the subject, set macro mode [🌷].



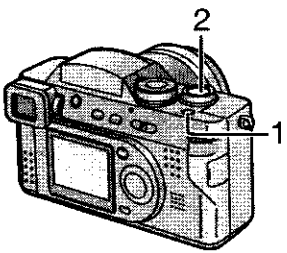
1 **Set the mode dial to macro mode [🌷].**

2 **Take a picture.**

- The recording method is the same as in "Taking Pictures (AUTO Mode)". (P28)

- When selecting the macro mode, Viewfinder functionality is limited. Use the LCD monitor.
- When the camera lens is at a distance over the available range from the subject, focus may not be adjusted even if the focus indication appears.

Taking Pictures with Burst Mode

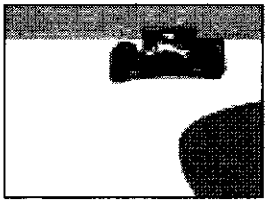


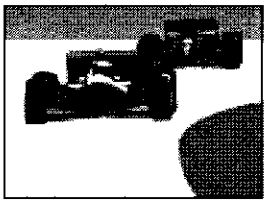
By continuously pressing the shutter button, it is possible to record in burst mode.
(4 frames/second maximum of 7 frames)

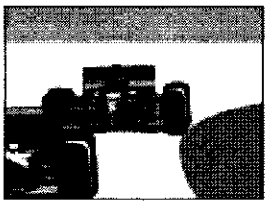
[Preparations]
- Set the mode dial. (P25)
- Set the AF mode. ()

1 **Press [ ].**
- [L]/[H] is displayed.

2 **Press the shutter button halfway or the [FOCUS] button to lock the focus, then press it fully to take pictures in sequence.**







- It is possible to record 4 frames in 1 second in burst mode, at a shutter speed higher than 1/25, but the flash does not fire simultaneously.
- If the flash fires, it is possible to record only 1 frame.
- When quality is set to fine [ ], it is possible to record a maximum of 4 frames in burst mode .
- In motion image mode [ ], the burst mode cannot be used.
- Only the first picture recorded is displayed on the LCD monitor/Viewfinder.

Using the MC Protector/ND Filter

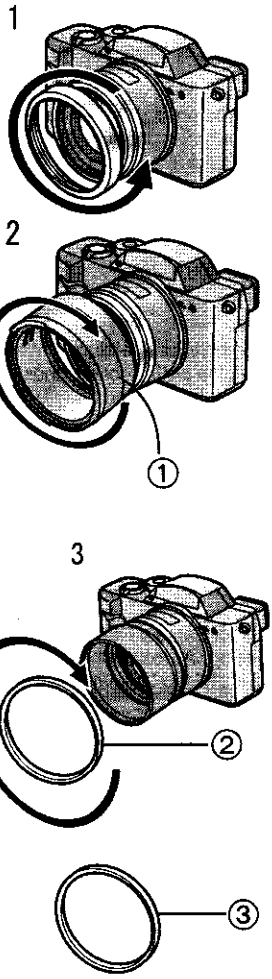
(When attaching the MC protector (DMW-LMC55; optional) or ND filter (DMW-LND55; optional) to the camera, the supplied lens hood adaptor is necessary)

1 **Remove the lens ring.**

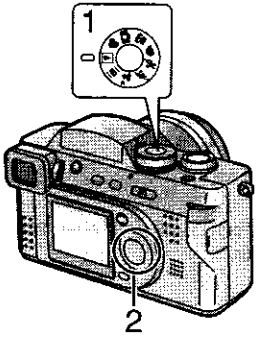
2 **Attach the lens hood adaptor** ①.

3 **Install the MC protector** ② **or the ND filter** ③.

- The lends hood can be attached when installing the MC Protector.



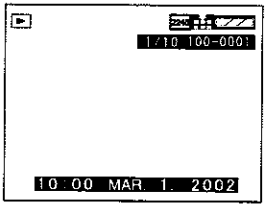
Playing Back Still Pictures



1 **Set the mode dial to playback [▶].**
- The last recorded picture is played back.

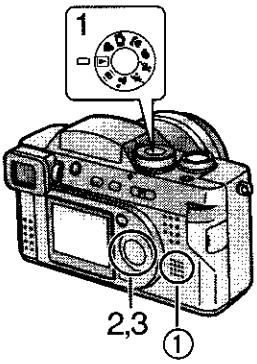
2 **Press ◀ to play back the previous picture.**
Press ▶ to play back the following picture.
- Every time you press, the previous (following) picture is played back.
- The picture following the last one is the first picture.

[Fast forwarding/Fast rewinding]
During playback, continue pressing ◀/▶.
▶: Fast forward
◀: Fast rewind
- The file number increases/decreases. When releasing ◀/▶, the picture corresponding to the current file number is displayed.



- This camera is based on the DCF standards (Design rule for Camera File system) which were established by the Japan Electronic Industry Technology Association (JEITA).
- The file format that can be played back with this camera is JPEG. (There are also pictures that cannot be played back in JPEG format)
- When playing back still pictures that have been recorded with other equipment, the quality of pictures may be deteriorated and pictures may not be able to be played back.
- When playing back a file out of standard, the folder/file number is indicated by [-] and the screen becomes black.

Playing Back Still Pictures with Audio



1 **Set the operational mode dial to playback [▶].**

2 **Press ◀/▶ to select the file with audio icon [🔊] ②.**

3 **By pressing the [REVIEW/SET] button, audio is played back.**
•You can hear audio from the speaker ①.

■ Following the steps listed below, it is possible to adjust the sound volume. Ⓐ

1 **Set the operational mode dial to playback [▶].**

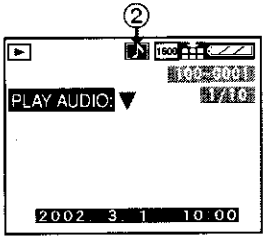
2 **Press the [MENU] button.**

3 **Press ▶ to select the setup menu.**

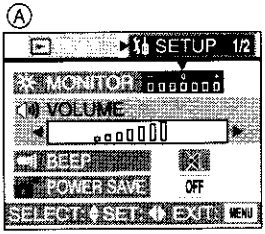
4 **Press ▲/▼ to select [VOLUME].**

5 **Press ◀/▶ to adjust the sound volume.**

6 **Press the [MENU] button.**
•The menu will disappear.



Ⓐ

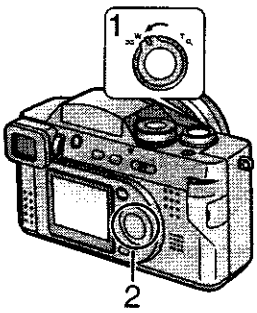


9 Images Multi Playback

It is possible to display 9 images at once.

[Preparation]

Set the mode dial to playback [▶].

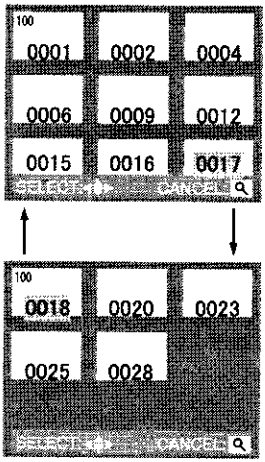


1 **During playback, rotate the zoom lever towards [▦].**

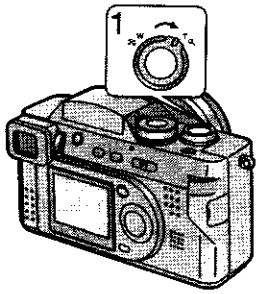
- Multi playback (9 frames) starts.

2 **Press ▲/▼/◀/▶ to select images.**

- To return to the normal indication, rotate the zoom lever towards [🔍]. The image with the file number colored in yellow is displayed.



Using the Playback Zoom



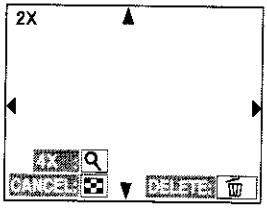
During playback it is possible to enlarge pictures.

[Preparation]

- Set the mode dial to playback [▶].

1 **During playback, rotate the zoom lever towards [Q].**

- The more the zoom lever rotates towards [Q], the more the zoom magnification ratio increases.
- The more the zoom lever rotates towards [▦], the more the zoom magnification ratio decreases.
- Use ▲/▼/◀/▶ to change the area to be enlarged.

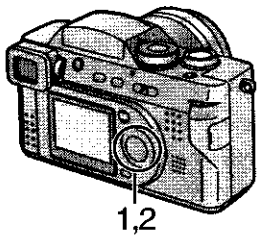


■ To delete a picture during the playback zoom

Press the [🗑] button.
When this message is displayed "DELETE THIS PICTURE?", press ▲/▼ to select [YES], and press the [REVIEW/SET] button.

- In motion image playback, it is not possible to magnify.
- The more the zoom magnification increases, the more the picture quality deteriorates.
- The playback zoom may not operate if pictures have been recorded with other equipment.

Playing Back Motion Images



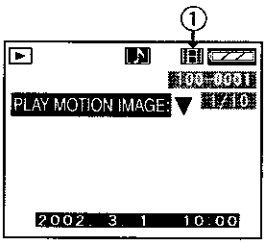
1 **Set the mode dial to playback [▶].**

2 **Press ◀/▶ to select the file with the motion image icon [▦] ①.**

3 **By pressing the [REVIEW/SET] button, the motion image will be played back.**
- By pressing ▼, motion image playback will stop.

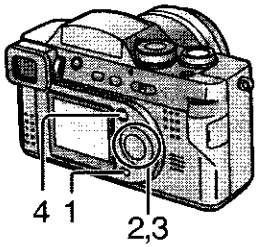
[Fast forwarding/Fast rewinding]
During motion image playback, continue pressing ◀/▶.
▶: Fast forward
◀: Fast rewind
- When releasing the button, it turns to normal playback.

[To pause]
Press ▲ during motion image playback.
- Press ▲ again to resume pause.

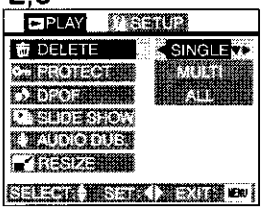


- When playing back motion images that have been recorded with other equipment, the quality of images may be deteriorated and images may not be able to be played back.
- The file format that can be played back with this camera is QuickTime Motion JPEG.
- It could happen that the Motion JPEG file recorded by PC or other equipments cannot be played back with this camera.
- When using a high capacity Memory Card, it is possible that fast rewinding may be slower.

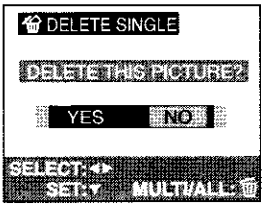
Deleting Images



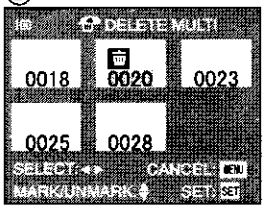
2,3



2Ⓐ



Ⓑ



Images recorded on the card can be deleted. Once deleted, images cannot be recovered.

[Preparations]

- Set the mode dial to playback [▶].
- When an image is protected, it cannot be deleted. Cancel the protect setting. (P70)

[Delete single image] Ⓐ

1 **Press the [🗑] button.**

2 **Press ▲/▼ to select [YES] and press ▶.**

3 **Press ◀/▶ to select the image to be deleted and then press the [REVIEW/SET] button.**
- The selected image is deleted.

4 **Press the [MENU] button twice.**
- The menu will disappear.

[Delete multi images] Ⓑ

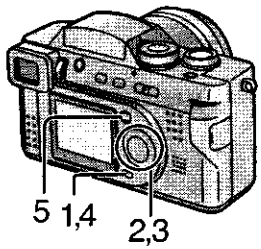
It is possible to delete up to 50 images all at once.

1 **Press [🗑] twice.**

2 **Press ▲/▼ to select [MULTI] and then press ▶.**

3 **Press ◀/▶ to select the images to be deleted and then press the [REVIEW/SET] button.**
- The selected images are displayed with [🗑]. Pressing ▼, the setting is cancelled.
- The selected multi images are deleted all at once.

4 **Press the [MENU] button twice.**
- The menu will disappear.



[Delete all images]

Once deleted, images cannot be recovered.

1 **Press the [🗑] button twice.**

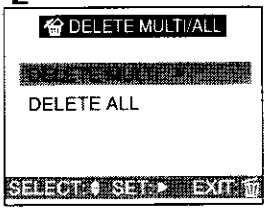
2 **Press ▲/▼ to select [ALL] and then press ▶.**

3 **When this message is displayed "DELETE ALL PICTURES?", press ▲/▼ to select [YES].**

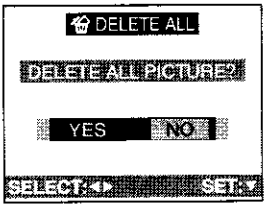
4 **Press the [REVIEW/SET] button.**

- All images are deleted.

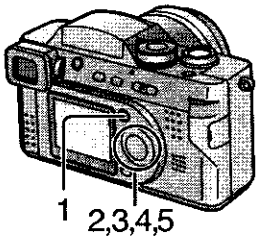
2



3



Writing the Print Information in the Card (DPOF Setting)



It is possible to write print information (DPOF data) on the card with the images that you want to print and the number of sheets.

DPOF is an abbreviation of Digital Print Order Format. With the DPOF corresponding system, you can add print information to the images on the Memory Card.

[Preparation]

- Set the mode dial to playback [▶].

[Single copy setting]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF] and then press ▶.**

3 **Select [SINGLE] and then press ▶.**

4 **Press ◀/▶ to select 1 image.**

5 **Press the [REVIEW/SET] button.**

- If the DPOF has already been set and only the number of sheets is changed, skip step 5.

6 **Press ▲/▼ to select the number of sheets.**

- The number of sheets can be set from 1 to 99.

7 **Press the [MENU] button twice.**

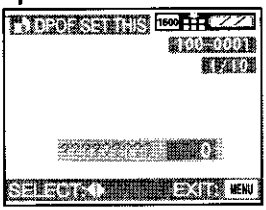
- The menu will disappear.

[To cancel]

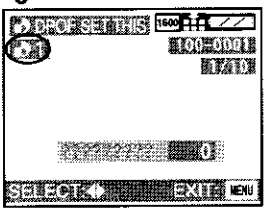
Perform steps 1-5, 7 of the [Single copy setting].

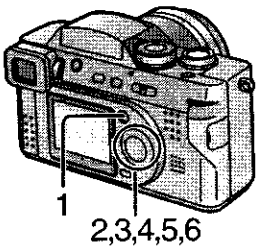
2,3

4



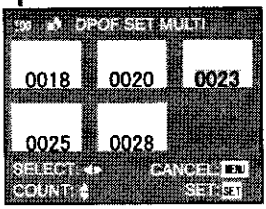
6



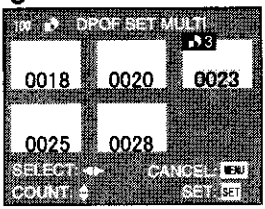


2,3

4



5



[Multi copy setting/to cancel]

It is possible to set up to 50 images all at once.

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF] and then press ►.**

3 **Press ▲/▼ to select [MULTI] and then press ►.**

4 **Press ◄/► to select the image.**

5 **Press ▲/▼ to select the number of sheets to be printed.**

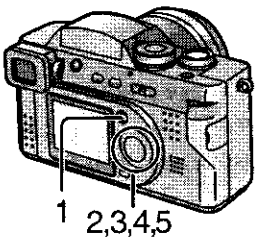
- The number of sheets can be set from 1 to 99.

6 **Repeat steps 4 and 5, and at the end press the [REVIEW/SET] button.**

- The DPOF setting of multi images is set at once.

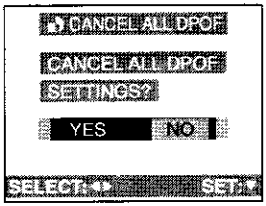
- If the file is not based on the DCF standard, the DPOF setting cannot be set.
- Images that are set by DPOF with the supplied software [SD Viewer for DSC] recorded on the CD-ROM cannot be played back in DPOF slide show with this camera. Set DPOF on this camera.
- When using the DPOF feature, this camera will overwrite any previous DPOF settings made by other products.

Writing the Print Information in the Card (DPOF Setting) (Continued)

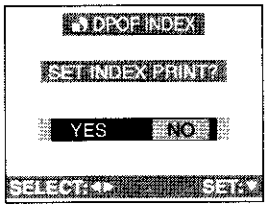


2,3

4



4



[To cancel all settings] Ⓐ

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [DPOF] and then press ▶.**

3 **Press ▲/▼ to select [CANCEL] and then press ▶.**

4 **When this message is displayed "CANCEL ALL DPOF SETTINGS?", press ▲/▼ to select [YES].**

5 **Press the [REVIEW/SET] button.**
- All DPOF settings are cancelled.

[Index setting/to cancel] Ⓑ

1 **Press the [MENU] button.**

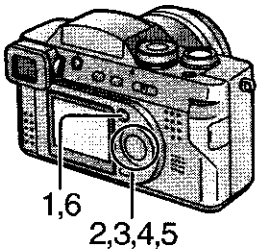
2 **Press ▲/▼ to select [DPOF] and then press ▶.**

3 **Press ▲/▼ to select [INDEX] and then press ▶.**

4 **When this message is displayed "SET INDEX PRINT?", press ▲/▼ to select [YES].**
- When the index is already set, press ▲/▼ to select [YES] or [NO].

5 **Press the [REVIEW/SET] button.**
- All images are set/cancelled.

Protecting Images on the Card



It is possible to protect the important images recorded on the card from accidental erasure.

[Preparation]

- Set the mode dial to playback [▶].

[Single setting/to cancel]

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [PROTECT] and then press ▶.**

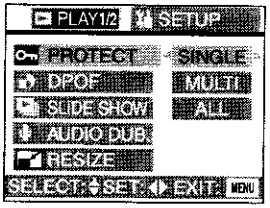
3 **Select [SINGLE] and then press ▶.**

4 **Press ◀/▶ to select 1 image.**

5 **Press the [REVIEW/SET] button.**

6 **Press the [MENU] button twice.**
- The menu will disappear.

2,3



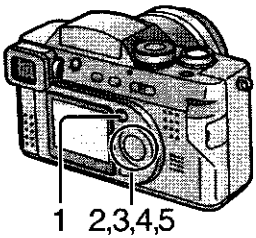
[Multi setting/to cancel, To cancel all settings]

1 **The method is the same as in "Writing the Print Information in the Card (DPOF Setting)". (P67~P69)**

- Formatting the card will erase all the data on the card, even if you protect the images in this procedure.
- When trying to delete a protected file, these messages are displayed "THIS PICTURE IS PROTECTED" or "SOME PICTURES CAN'T BE DELETED". If you want to delete this file, cancel the protect setting first.
- The protect setting is effective only in this camera.
- Sliding the SD Memory Card Write-Protect switch to [LOCK] prevents the picture from deletion even if the protection is not set.

Playing Back with Slide Show (Automatic Playback)

All pictures selected in the card can be played back one-by-one automatically.



[Preparation]

- Set the mode dial to playback [▶].

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [SLIDE SHOW] and then press ▶.**

3 **Press ▲/▼ to select [ALL]/[DPOF] and then press ▶.**
- [ALL]: for playing back all pictures
- [DPOF]: for playing back the DPOF set pictures

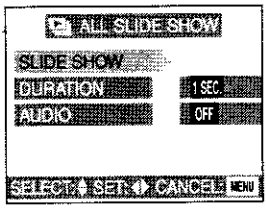
4 **Press ▲/▼/◀/▶ for setting below.**
- [DURATION]: it can be set among 1, 2, 3 and 5 seconds.
- [AUDIO]: it can be set to [ON] or [OFF]. By setting it to [ON], it is possible to play back the still pictures with audio in slide show.
- [DPOF SET] (Only when setting to [DPOF]): You can select the pictures you want to set to the Slide Show.
- [CANCEL ALL] (Only when setting to [DPOF]): You can delete the pictures that have been set to the Slide Show.

5 **Press ▲/▼ to select [SLIDE SHOW].**

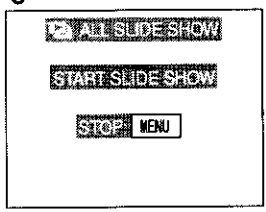
6 **Press ▶.**
- The slide show starts.
- By pressing the [MENU] button, it stops.

2,3

4

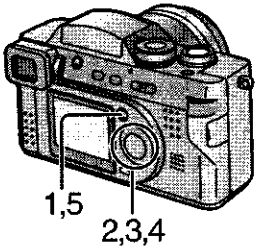


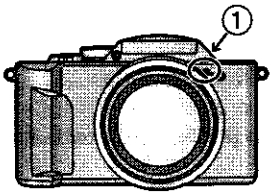
6



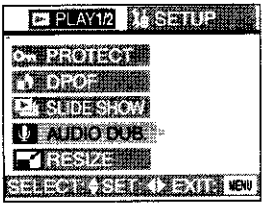
- In motion image playback, slide show is not available.
- When editing with the supplied software [SD Viewer for DSC] recorded on the CD-ROM, you can play back in SD slide show with this camera. Read P92.
- Images that are set DPOF with the supplied software [SD Viewer for DSC] recorded on the CD-ROM cannot be played back in DPOF slide show with this camera. Set DPOF on this camera.
- When using the DPOF feature, this camera will overwrite any previous DPOF settings made by other products.

Adding Audio to Recorded Pictures (Audio Dubbing)

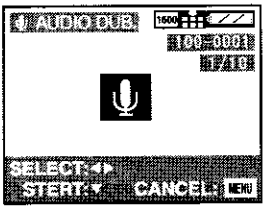




2



3



It is possible to add a 10-second narration to a recorded picture.

[Preparations]

- Set the mode dial to playback [▶].
- Select the picture to which you want to add audio.

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [AUDIO DUB.] and then press ▶.**

3 **By pressing the [REVIEW/SET] button, audio recording starts. (① Microphone)**

- When audio has already been recorded, after the audio dubbing the original audio is overwritten.
- When audio has already been recorded, this message is displayed "OVERWRITE AUDIO DATA?". Then press ▲/▼ to select [YES] and after pressing the [REVIEW/SET] button, the audio recording starts.

4 **By pressing the [REVIEW/SET] button, the audio recording stops.**

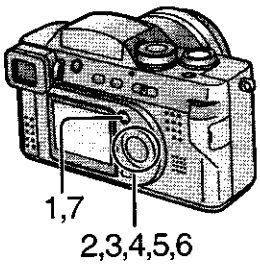
- Even if you do not press the [REVIEW/SET] button, after about 10 seconds the audio recording stops automatically.

5 **Press the [MENU] button twice.**

- The menu will disappear.

- The audio dubbing cannot be used with motion images.

Resizing the Recorded Pictures



It is possible to reduce the recorded picture size. This function is useful if you want to reduce the volume of the picture for attaching to an e-mail or uploading on web-site.

[Preparations]

- Set the mode dial to playback [▶].
- Play back the picture for which you want to change the size. (Note: for pictures in a size lower than [640 × 480] or with an aspect ratio that is not 4:3, it is not possible to resize)

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [RESIZE] and then press ▶.**

3 **Press ▲/▼ to select the size.**

- 1600 : 1600 × 1200
- 1280 : 1280 × 960
- 640 : 640 × 480

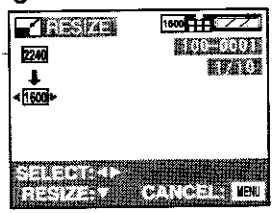
4 **Press the [REVIEW/SET] button to set the size.**

5 **When this message is displayed "DELETE ORIGINAL PICTURE?", press ▲/▼ to select [YES] or [NO].**

6 **Press the [REVIEW/SET] button.**

7 **Press the [MENU] button.**

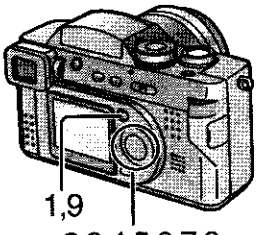
- The menu will disappear.



- It may not be possible to resize the pictures recorded with other equipments.

Trimming the Recorded Pictures

It is possible to cut off the unnecessary parts of the picture (trimming), and enlarge the remainder parts of the picture.



[Preparations]

- Set the mode dial to playback [▶].
- Select the picture you want to trim.

1 **Press the [MENU] button.**

2 **Press ▲/▼ to select [TRIMMING] and then press ▶.**

3 **Press ▲/▼ to select the size.**

- [1600] : 1600 × 1200
- [1280] : 1120 × 840
- [640] : 640 × 480

4 **Press the [REVIEW/SET] button.**

5 **Press ▲/▼/◀/▶ to shift pictures.**

6 **Press the [REVIEW/SET] button to set.**

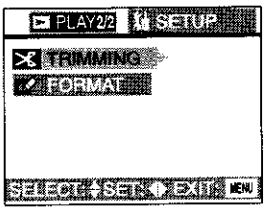
7 **When this message is displayed "DELETE ORIGINAL PICTURE?", press ▲/▼ to select [YES] or [NO].**

8 **Press the [REVIEW/SET] button.**

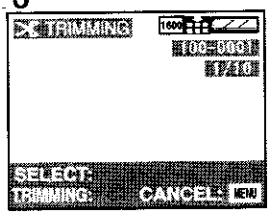
9 **Press the [MENU] button.**

- The menu will disappear.

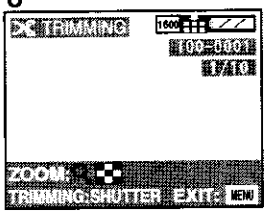
2



3

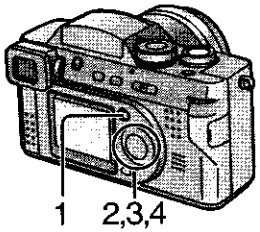


5



- You cannot operate trimming on pictures recorded with other equipment.
- Motion images cannot be trimmed or enlarged.
- Trimming is not possible for pictures with audio or pictures with a size of [640 × 480] pixels.

Formatting the Card



Usually, it is not necessary to format the card (initializing). Format the card when this message is displayed "MEMORY CARD ERROR".

[Preparation]

- Set the mode dial to playback [▶].

1 **Press the [MENU] button.**

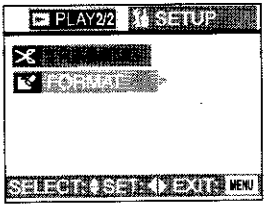
2 **Press ▲/▼ to select [FORMAT] and then press ▶.**

3 **When this message is displayed "DELETE ALL DATA ON THE MEMORY CARD?", press ▲/▼ to select [YES].**

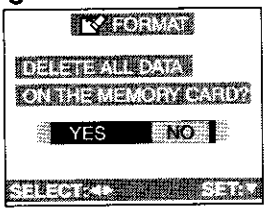
4 **Press the [REVIEW/SET] button.**

- The card is formatted.
- After formatting, recorded images and any other data cannot be recovered.

2



3



- During formatting, do not turn the power off.
- When the card is formatted by PC or other equipment, format the card on the camera again.

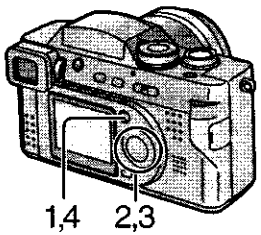
- If the card cannot be formatted, consult your dealer.

For USA assistance, please call: 1-800-272-7033 or send e-mail to : consumerproducts@panasonic.com

For Canadian assistance, please call: 1-800-561-5505 or visit us at www.panasonic.ca

Adjusting the LCD Monitor/Viewfinder Brightness

When the LCD monitor/Viewfinder is displayed, the LCD monitor/Viewfinder brightness can be adjusted, and when the Viewfinder is displayed, the Viewfinder brightness can be adjusted.



[Preparation]
- Display the LCD monitor or Viewfinder.

1 **Press the [MENU] button.**

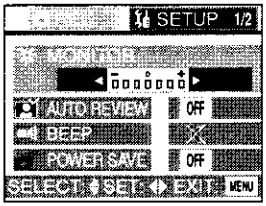
2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [MONITOR]/ [EVF].**

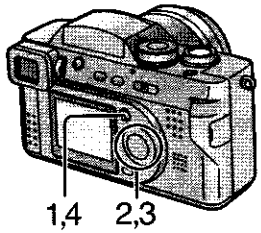
4 **Press ◄/► to adjust the brightness.**

5 **Press the [MENU] button.**
- The menu will disappear.

2,3



Using the Auto Review



Recording with the auto review set to [ON], the recorded picture is automatically displayed on the LCD monitor/Viewfinder for about 2 seconds.

[Preparation]
Set the mode dial to REC mode.

1 **Press the [MENU] button.**

2 **Press ▶ to open the setup menu.**

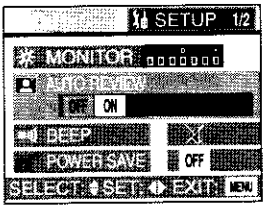
3 **Press ▲/▼ to select [AUTO REVIEW].**

4 **Press ◀/▶ to select [ON].**

5 **Press the [MENU] button.**

- The menu will disappear.

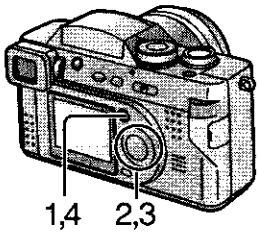
2,3



- In burst mode [□] or auto bracket, only the first recorded picture is displayed.
- Even when setting the auto review to [ON], it is not available in motion image mode [▦].
- When recording in burst mode [□], auto bracket, still picture with audio modes, the auto review is set to [ON].

Setting up the Operational Sound

It is possible to set the sound volume when the menu operations are done.



1 **Press the [MENU] button.**

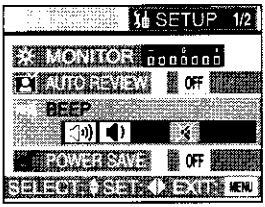
2 **Press ▶ to open the setup menu.**

3 **Press ▲/▼ to select [BEEP].**

4 **Press ◀/▶ to adjust the operational sound volume.**

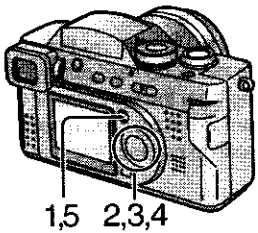
5 **Press the [MENU] button.**
- The menu will disappear.

2,3



Setting up the Power Save Mode

When setting this mode, the camera, if it is not operated for about 2, 5 or 10 minutes, it is automatically turned off.



1 **Press the [MENU] button.**

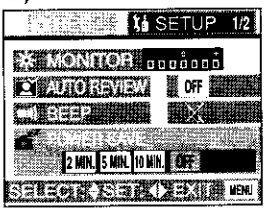
2 **Press ► to open the setup menu.**

3 **Press ▲/▼ to select [POWER SAVE].**

4 **Press ◄/► to choose the setting time.**
- You can choose among [2 MIN.], [5 MIN.] and [10 MIN.].
- If selecting [OFF], the power is not turned off automatically.

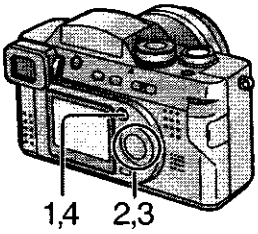
5 **Press the [MENU] button.**
- The menu will disappear.

2,3



- If you want to cancel the power save mode, turn the power switch to [OPERATE] again after turning it to [STANDBY], or press the shutter button.
- When using the AC adaptor, the power save mode is not available.
- In power save mode, or if the battery charge is low and you have to charge it, turn the camera off and connect the AC adaptor to the camera DC IN socket. If connecting the AC adaptor when the power switch is set to [OPERATE], the camera may not function correctly.

Resetting the File Number



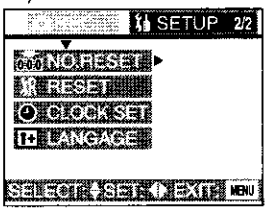
As the file numbers are recorded sequentially by the camera, when you use some cards (SD Memory Card/MultiMediaCard), it may happen that the file numbers on your cards do not start from 0001. Use this function when you insert a new card or perform the new recording on the recorded card and you want to start recording from the file number 0001, or when you want to set the file numbers of the recorded cards in consecutive numbers.

[Preparation]
Set the mode dial to REC mode.

1 **Press the [MENU] button.**

2 **Press ► to open the setup menu.**

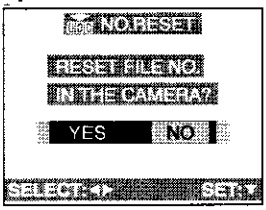
2,3



3 **Press ▲/▼ to select [NO. RESET] and then press ►.**

4 **When this message is displayed "RESET FILE NO. IN THE CAMERA?", press ◄/► to select [YES].**

4



5 **Press the [REVIEW/SET] button to set.**

6 **Press the [MENU] button.**

- The menu will disappear.

Initializing the settings

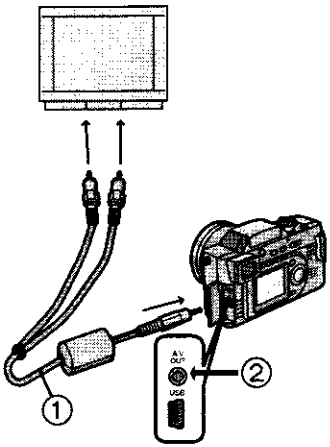
The settings are initialized using this function.

[Preparation]
Set the mode dial to REC mode.

1 **Press the [MENU] button.**
2 **Press ► to open the setup menu.**
3 **Press ▲/▼ to select [RESET] and then press ►.**
4 **When this message is displayed "RESET THE RECORDING SETING?", press ◄/► to select [YES].**
5 **Press the [REVIEW/SET] button to set.**
6 **When this message is displayed "RESET THE SETUP SETING?", press ◄/► to select [YES].**

- The clock setting is not reset.

Playing Back Images with a TV Monitor



By connecting the camera to a television via the supplied A/V cable ①, it is possible to view and play back the recorded images.

[Preparation]

- Turn the camera and the television off.

1 **Connect the A/V cable to the A/V OUT socket ② of the camera.**

2 **Connect the A/V cable to the video in and the audio in sockets of the TV.**

- Yellow: to the video in socket
- White: to the audio in socket

3 **Turn the television on and select external input.**

4 **Turn the camera on and then set the operational mode dial to playback [▶].**

- The image is displayed on the television.

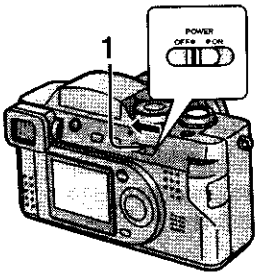
■ Viewing images in other countries

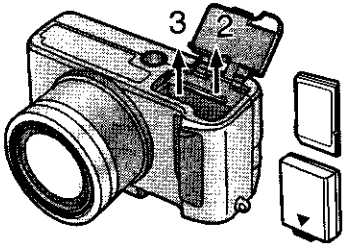
When setting [VIDEO OUT] on the menu, you can view images on the TV in other countries (regions) which use the NTSC or PAL system.

- Even if you set menu selection for [VIDEO OUT] to [PAL], the output signal is still NTSC system.

- Do not use any other cables except the supplied one.
- Read the TV operating instructions too.

After Use





After using the camera and after following steps, it is recommended to place it in the optional soft case, in order to protect it.

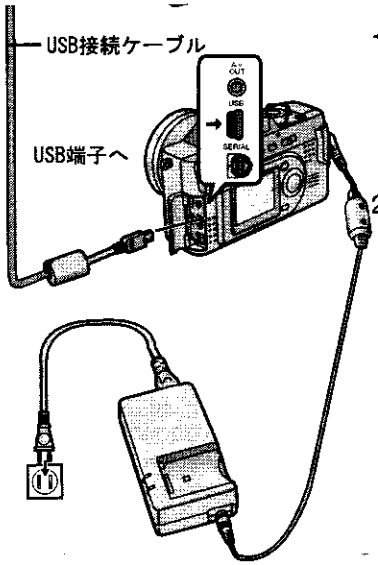
1 **Turn the power switch to [STANDBY]. (P18)**

2 **Eject the card. (P16)**

3 **Remove the battery. (P13)**

4 **Attach the lens cap. (P21)**

Connecting to a PC



[Preparation]

Only if using Windows® 98 or Windows® 98 Second Edition, start the supplied CD from PC and install the USB driver.

- For further information, read the supplied operating instructions for USB connection kit.

1 **After inserting the Memory Card into the camera, set the mode dial to playback [▶] and turn the power switch to [OPERATE].**

2 **Connect the camera to PC via supplied USB cable ①.**

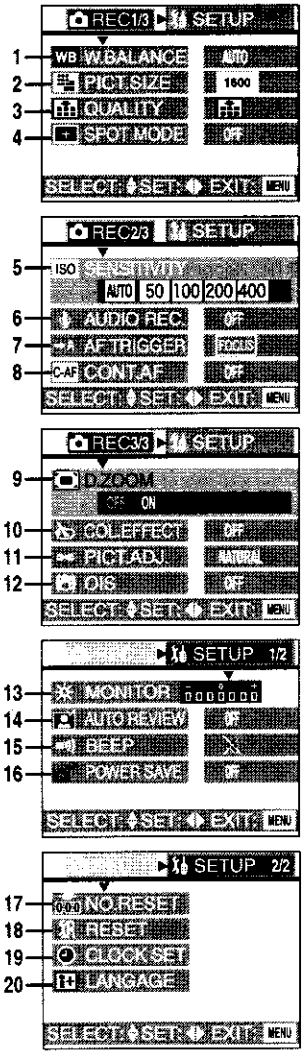
[Windows]
The drive is shown on the [My computer] folder.

- If it is the first time you are connecting the camera to PC, the required driver is installed automatically in order to let the camera be recognized by the Windows Plug and Play, then it is shown on the [My computer] folder.

[Macintosh]
The drive is shown on the screen.

- When connecting to a PC it is recommended that you use the AC adaptor as the power source.
- When connecting the PC, the display of the LCD monitor/Viewfinder is set to off. In this case, the status indicator lights. Moreover, when the PC accesses the card, the flash indicator also lights.
- When connecting to a PC. picture and sound are not output from A/V out socket.

The Menu Items



REC mode menu

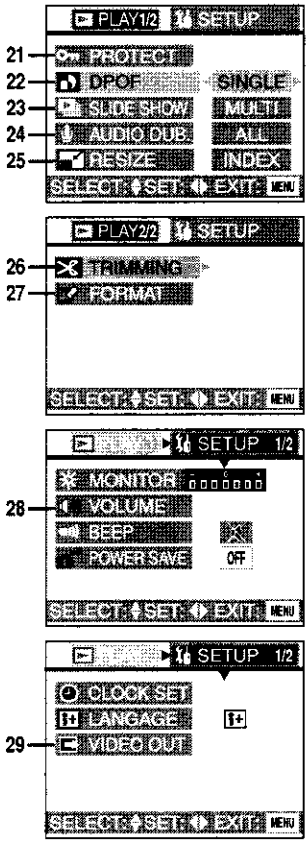
- For items without number, refer to those with the same name.

1 W.BALANCE (P54)
2 PICT. SIZE (P41)
3 QUALITY (P42)
4 SPOT MODE (P47)
5 SENSITIVITY (P56)
6 AUDIO REC. (P37)
7 AF TRIGGER (P00)
8 CONT.AF (P00)
9 D. ZOOM (P34)
10 COL.EFFECT (P00)
11 PICT. ADJ. (P53)
12 OIS (P00)

REC mode setup menu Ⓐ

13 MONITOR (P78)
14 AUTO REVIEW (P79)
15 BEEP (P80)
16 POWER SAVE (P81)
17 NO. RESET (P82)
18 RESET (P00)
19 CLOCK SET (P27)
20 LANGUAGE

The Menu Items (Continued)



Playback mode menu

- For items without number, refer to those with the same name.

21 PROTECT (P70)
22 DPOF (P67)
23 SLIDE SHOW (P71)
24 AUDIO DUB. (P73)
25 RESIZE (P74)
26 TRIMMING (P75)
27 FORMAT (P77)

Playback mode setup menu Ⓑ
28 VOLUME (P61)
29 VIDEO OUT (P84)

Cautions for Use

■ Cautions for Use

Keep the digital camera away from magnetized equipment (such as a microwave oven, TV, video game equipment, etc.).

- If you use the digital camera on or near a TV, images and sounds may be disturbed due to electromagnetic wave radiation.
- Do not use the digital camera near a cell phone because doing so may cause noise to adversely affect the images and sounds.
- Recorded data may be damaged, or images may be distorted by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by a microprocessor may adversely affect the digital camera, causing the disturbance of images and sounds.
- If the digital camera is affected by magnetically charged equipment and does not function properly, turn the camera off and detach the battery or AC adaptor and then connect the battery or AC adaptor again. Thereafter, turn the camera on.

Do not use the digital camera near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, recorded images or sounds may be adversely affected.

Do not spray insecticides or volatile chemicals onto the digital camera.

- If the digital camera is sprayed with such chemicals, the camera body may be deformed and the surface finish may peel off.
- Do not keep rubber or plastic products in contact with the digital camera for a long period of time.

When you use the digital camera on a beach or similar place, do not let sand or fine dust get into the camera.

- Sand or dust may damage the digital camera or card. (Care should be taken when inserting and removing the card)

When you use your digital camera on a rainy or snowy day or on a beach, make sure that no water enters the digital camera.

- Water may cause the digital camera or card to malfunction. (Irreparable damage may occur)
- If sea water splashes onto the digital camera, wet a soft cloth with tap water, wring it well, and use it to wipe the camera body carefully. Then, wipe it again thoroughly with a soft dry cloth.

Do not use the digital camera for surveillance purpose or other business use.

- If you use the digital camera for a long period of time, the internal temperature increases and, consequently, this may cause malfunction.
- The digital camera is not intended for business use.

Do not use benzine, thinner or alcohol for cleaning the digital camera.

- The camera body may be deformed and the surface finish may peel off.
- Before cleaning the camera, detach the battery or pull out the AC adaptor from the electrical outlet.
- Wipe the digital camera with a soft, dry cloth. To remove stubborn stains, wipe with a cloth that is soaked in a detergent diluted with water and afterward finish wiping with a dry cloth.
- For storing or transporting the digital camera, place it in a bag or case lined with soft pads to prevent the coating on the camera body from being worn.

After use, be sure to take the card out, and detach the battery or pull out the AC adaptor from the electrical outlet.

- If the battery is left on the digital camera for a long time, the voltage drops excessively, and the battery will not function even after it is recharged.

■ Optimal Use of the Battery

The battery is a rechargeable lithium ion battery. Its ability to generate power is based upon the chemical reaction that takes place inside it. This reaction is susceptible to the surrounding temperature and humidity, and, if the temperature is too high or too low, the operating time of the battery becomes shorter.

Be sure to detach the battery after use.

Be sure to detach the battery from the digital camera. (If it is left attached to the digital camera, a minute amount of current is consumed even when the digital camera power is off) If the battery is left attached to the digital camera for a long time, discharge takes place. The battery may become unusable after it is charged.

Dispose of an unusable battery.

- The battery has a limited life.
- Do not throw the battery into fire because it may cause an explosion.

Always keep the terminals of the battery clean.

Prevent the terminals from getting clogged with dirt, dust, or other substances.

If you drop the battery accidentally, check to see if the battery body and terminals are deformed. Attaching a deformed battery to the digital camera may damage the camera.

■ Condensation

When condensation has taken place:

Set the power switch to [STANDBY] and leave the digital camera in this condition for about 1 hour. When the camera becomes close to the ambient temperature, the fog disappears naturally.

■ Cautions for Storage

Before storing the digital camera, take the card out and detach the battery. Store all the components in a dry place with a relatively stable temperature. (Recommended temperature: 15 to 25 °C, Recommended humidity:40 to 60 %)

Digital camera

- Wrap it with a soft cloth to prevent dust from getting into the camera.
- Do not leave the camera in places that expose it to high temperature.

Battery

- Extremely high or low temperatures will shorten the life of the battery.
- If the battery is kept in smoky or dusty places, the terminal may rust and cause malfunctions.
- Do not allow the battery terminals to come in contact with metal objects (such as necklaces, hairpins, etc.). This can result in a short circuit or heat generation and, if you touch the battery in this condition, you may be badly burned.
- Store the battery in a completely discharged state. To store the battery for a long period of time, we recommend you charge it once every year and store it again after you completely use up the charged capacity.

Card

- When the card is being read, do not remove the card, turn off the power, or subject it to vibration or impact.
- Do not leave the card in places where there is high temperature or direct sunlight, or where electromagnetic waves or static electricity are easily generated.
- Do not bend or drop the card. The card or the recorded content may be damaged.
- After use, be sure to remove the card from the digital camera.
- Do not touch the terminals on the back of the card with your fingers. Do not allow dirt, dust or water to enter it.

■ LCD Monitor/Viewfinder/Lens Ring

LCD monitor

- In a place with drastic temperature changes, condensation may form on the LCD monitor. Wipe it with soft dry cloth.
- If the digital camera is extremely cold when you turn the power on, the image on the LCD monitor is slightly darker than usual at first. However, as the internal temperature increases, it goes back to the normal brightness.

Extremely high precision technology is employed to produce the LCD monitor screen featuring a total of approximately 110,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Viewfinder

- Do not direct the Viewfinder or lens to the sun. Internal components may be seriously damaged.

Extremely high precision technology is employed to produce the Viewfinder screen featuring a total of approximately 110,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.

Lens ring

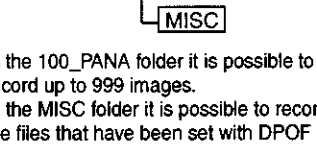
- If you push the zoom lever toward W during recording with the filter or conversion lens attached to the digital camera, 4 corners of the image may become dark (vignetting). For details, refer to the operating instructions of your accessories.
- Be sure to keep the lens ring attached to the digital camera so as to shut out unnecessary light.

■ SD Slide Show

If setting the SD slide show with the [SD Viewer for DSC] which is in the supplied CD-ROM, when playing back, the message "START SD SLIDE SHOW?" is displayed. Press ▲/▼ to select [YES] and press the REVIEW/SET button to start the SD slide show.

■ Folder Composition

When the Memory Card where data are recorded is inserted into a PC, the folders shown below will be displayed.



- In the 100_PANA folder it is possible to record up to 999 images.
- In the MISC folder it is possible to record the files that have been set with DPOF settings.

Warning Indications

[NO MEMORY CARD]
Insert the Memory Card.

[THIS MEMORY CARD IS PROTECTED]
Cancel the Memory Card lock.

[NO VALID IMAGE TO PLAY]
Carry out playback after recording or after inserting the Memory Card with a recorded image.

[MEMORY CARD FULL]
Insert a new Memory Card or delete the useless data.

[REMOVE LENS CAP AND PRESS SET BUTTON]
Remove the lens cap and then press the [REVIEW/SET] button.

[MEMORY CARD ERROR]
Failed access to Memory Card.
Insert the card again.

[READ ERROR]
Data reading error.
Play it back again.

[WRITE ERROR]
Data writing error.
Turn the camera [STANDBY] and remove the card. Then insert the card and turn the camera back [OPERATE]. Be sure camera is [STANDBY] before removing or inserting the card to avoid damaging the card.

[THIS PICTURE IS PROTECTED]
After cancelling the protect setting, you can delete or overwrite the image.

[THIS PICTURE CAN'T BE DELETED] / [SOME PICTURES CAN'T BE DELETED]
After cancelling the protect setting, you can delete the image.

[NUMBER OF PRINT IS OVER]
You have exceeded the number of images that can be set at once, with multi deleting, protect and DPOF settings.

[CAN'T BE SET ON THIS PICTURE] / [CAN'T BE SET ON SOME PICTURES]
If the image is not based on the DCF standard, it is not possible to set the DPOF.

[MEMORY CARD ERROR FORMAT THIS CARD?]
The format of this card cannot be recognized by the camera. Format this again with the camera.

Troubleshooting

1: The power does not turn on.

1-1: Are the battery and the AC adaptor correctly connected? Check the connection.

1-2: Is the battery sufficiently charged? Use a battery that has been sufficiently charged.

2: As the power is turned on, it turns off immediately.

2-1: Is the battery charge insufficient to operate the camera? Charge the battery or replace it with charged one.

2-2: Has condensation occurred? Carrying the digital camera from a cold place to a warm place could cause condensation to form inside the camera. Wait until condensation disappears.

3: The image cannot be recorded.

3-1: Is the Memory Card inside?

3-2: The mode dial is not set to REC mode.

3-3: There is no memory capacity left on the card. Before recording, delete some images.

4: The image is not displayed on the LCD monitor.

4: Is the the image displayed on the Viewfinder? Press the [DISPLAY] button to switch to LCD monitor display.

5: The LCD monitor/Viewfinder is too bright or dark.

5-1: Adjust the brightness of the LCD monitor/Viewfinder.

5-2: Flash does not fire. Is the flash closed? Press the flash open button to open the flash.

6: The display or images on the LCD monitor/Viewfinder are not focused.

6: Set the mode dial to the mode corresponding to the distance to the subject.

7: The image cannot playback.

7-1: Is the Memory Card inside?

7-2: There is no image in the Memory Card.

7-3: The mode dial is not set to playback [▶].

8: The image is not displayed on the television.

8-1: Is the camera correctly connected with the TV? Check it.

8-2: Set the TV to video input mode.

9: When connecting to PC, images cannot be transferred.

9: Check that the camera is correctly connected to the PC.

Specifications

Digital Camera Information for your safety

Power Source:	DC 8.4 V
Power Consumption:	2.6 W (When recording with LCD Monitor) 2.4 W (When recording with Viewfinder) 2.4 W (When playing back with LCD monitor) 2.4 W (When playing back with Viewfinder)

Effective number of pixels	2.04 Million Pixels
Image sensor	1/3.15 inch CCD, total pixel number 2,110,000 Complementary color filter
Lens	Optical 12× zoom, f=4.6-55.2 mm (35 mm film camera equivalent: 35-420 mm)/F2.8
Digital zoom	Max 2× (variable)
Focus	Auto/Macro Normal/Spot AF change
Focus range	Auto: 30 cm - ∞, Macro: 3 cm (Wide)/100 cm (Tele) - 50 cm
Shutter system	Electronic shutter + Mechanical shutter
Burst recording	4 frames/second, Max 7 frames (standard)/ 4 frames (fine)
Motion image recording	320 × 240 (10 frames/second with audio)
ISO sensitivity	AUTO/50/100/200/400
Shutter speed	AUTO mode/Program AE (ISO AUTO mode): 1/8 - 1/1,000 Motion image mode: 1/30 - 1/1,000
White balance	AUTO/Daylight/Cloudy/Halogen/Flash /White set
Exposure (AE)	AUTO Exposure compensation (1/3 EV Step, -2 - +2 EV)
Metering mode	Multi/Spot
LCD monitor	1.5 inch low-temperature polycrystalline TFT LCD (110,000 pixels)
Viewfinder	Color electrical Viewfinder (with dioptor adjustment) (-4 +4dioptor)
Flash	Built-in flash flash range: (ISO 100) approx. 30 cm - 2.1 m AUTO, AUTO/Red-eye reduction, Forced ON, Slow sync./Red-eye reduction, Forced OFF
Microphone	Monaural
Speaker	Monaural
Recording media	SD Memory Card/MultiMediaCard
Recording size	2240 × 1680, 1600 × 1200, 1120 × 840, 640 × 480, 320 × 240 (Motion image mode)
Quality	Fine/Standard
Recording file format Still Picture	JPEG (Design rule for Camera File system)/TIFF (RGB), DPOF corresponding

Still picture with audio	JPEG (Design rule for Camera File system) + 640 × 480 QuickTime Motion JPEG (still picture with audio)
Motion image	QuickTime Motion JPEG (motion image with audio)
Interface	
Digital	USB
Analog video/audio	NTSC/PAL Composite/Audio line output (monaural)
Terminal	
USB	5 pin Mini USB
Analog video/audio	Φ 2.5 mm jack
DC IN	EIAJ type 3 jack
Dimensions (W × H × D)	114 × 70 × 76.7 mm (excluding the projection part)
Weight	Approx.314 g (excluding Memory Card and battery) Approx.346 g (with Memory Card and battery)

AC adaptor (Panasonic DE-928AA) Information for your safety

Input	USA&CANADA	120 V~60 Hz, 1.2 A
	Foreign	110 - 240 V~50/60 Hz, 1.2 A
Output		8.4 V⎓1.2 A

Battery pack (lithium-ion)
(Panasonic DMW-BM7) Information for your safety

Voltage/capacity	7.2 V, 680 mAh

Index

A
AF/AE Lock 51
Audio Dubbing 73
Auto Review 79
Auto (AE) Bracket 50
B
Built-in Flash 35
Burst Mode 58
C
Clock Set 27
Condensation 91
D
Digital Zoom 34
DPOF 67
F
File Number 82
Formatting 77
I
ISO Sensitivity 56
L
LCD Monitor Brightness 78
M
Macro Mode 57
MC Protector 59
Motion Image 32
Multi Playback 62
MultiMediaCard 17
N
ND Filter 59
Night Portrait Mode 46
O
Operational Sound 80
Optical Zoom 33
P
Picture Size 41
Playback Zoom 63
Portrait Mode 44
Power Save Mode 81
Q
Quality 42
R
Resize 74
Review 31
S
SD memory card 17
SD Slide Show 92
Self-timer 39
Slide Show 71
Sports Mode 45
Spot Mode 47
T
Trimming 75
W
White Balance 54